

The University of Chicago

CONTRIBUTIONS OF WILLIAM
TORREY HARRIS TO PUBLIC
SCHOOL ADMINISTRATION

A DISSERTATION SUBMITTED TO THE FACULTY
OF THE DIVISION OF THE SOCIAL SCIENCES
IN CANDIDACY FOR THE DEGREE OF DOCTOR
OF PHILOSOPHY

DEPARTMENT OF EDUCATION
JUNE, 1946

By
CARL LESTER BYERLY

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C. L. B.

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CHAPTER I

INTRODUCTION

The office of school superintendent was established a little over a century ago; however public school administration did not acquire a recognized professional status until many years later. Up to the latter part of the nineteenth century there was little evidence of a common concept of the function or the scope of public education in America. Without such a concept there was no foundation upon which the profession of school administration could be built. The development of the profession awaited the definition of the purposes and objectives of public education, and the refinement of techniques and procedures. Furthermore, it required some general agreement upon an organizational pattern and the establishment of standard practices which would lend themselves to comparative analysis.

The functions of professional school administration were developed over a long period of trial and error experimentation. In this period a few individuals stand out with particular prominence as those who set the pattern which public education was to follow. The contributions of Horace Mann and Henry Barnard have been fully recognized in the history of American education but the fruition of their ideals depended particularly upon the work of one of their successors. Or, as Curti has so aptly put it, "While it was Barnard and Mann who laid the foundations of the American public school system, it was William T. Harris who presided over the rearing of the structure."¹

During the latter part of the nineteenth century the office of superintendent of schools became the strategic position in the public school system.² It was then that school organiza-

¹Merle Curti, The Social Ideas of American Educators, p. 310. New York: Charles Scribner's Sons, 1935.

²John Dale Russell and Charles H. Judd, The American Educational System, p. 130. Boston: Houghton Mifflin Company, 1940.

tion began to assume a standard pattern; that the techniques of administration, supervision, and control were more adequately developed to meet the requirements of concentrated populations; and that the legal aspects of financial support for schools were defined. At the same time the problem of adequate school housing required new developments in architecture and furnishings, and the impact of the industrial revolution brought about a critical evaluation of the curriculum. For the solution of most of these complex problems there was no fund of experience to be relied upon for guidance; there were few precedents to be followed. Furthermore, it was upon lay boards of education that the solution of these problems devolved. In this situation, boards of education in city school systems came more and more to rely upon the leadership of the superintendent of schools.¹ The superintendent, in turn, lacking professional training for much of the work he was expected to do, looked to the reputed leaders in his own profession for assistance.

During the period from 1867 to 1906, in the annual conventions of the National Educational Association and the Department of Superintendence, the voice of one man spoke with unusual conviction and clarity, year after year--attracting the respect of his peers by his earnestness, eloquence, and sagacity of pronouncements. The same speaker, from 1867 to 1880, issued annual reports for his board of education describing his practices and procedures dealing with problems common to school superintendents. These prosaic annual reports, along with a stream of definitive and expository articles by the same author in most of the recognized educational journals, acquired a wide clientele.

This résumé describes briefly the ascendancy of Dr. William Torrey Harris, superintendent of instruction in St. Louis, Missouri, and later United States Commissioner of Education, and explains the media by which he gained recognition as the most influential man in American education over some forty years²--the era when the administration of public education assumed the form

¹William John Cooper, "Introduction," Modern School Administration, ed. by John C. Almack, pp. 4-5. Boston: Houghton Mifflin Company, 1933.

²John S. Roberts, William T. Harris, A Critical Study of His Educational and Related Philosophical Views, p. 1. Washington: National Education Association of the United States, 1924.

it retains generally today.

Since every standard encyclopedia includes an account of the life and work of Dr. Harris no purpose would be served by repeating his biography in detail. The parents of Dr. Harris were well-to-do farmers of North Killingly, Connecticut. He was born in 1835, at the time when Horace Mann and Henry Barnard were beginning their public careers. Young Harris was sent to private academies, including Phillips Andover, to prepare for college. He matriculated at Yale College in 1855 but withdrew after two years in a private rebellion against the usual requirement of higher courses in Latin and Greek. There is no evidence that he had planned to enter the teaching profession, but in the year 1857 he became a teacher in the schools of St. Louis, Missouri. During the following ten years he was successively a teacher, an elementary school principal, and assistant superintendent. In 1867 he was elected to the superintendency of the St. Louis schools and he held that position until his retirement in 1880 to lecture and write as a member of the Concord School of Philosophy. In 1889 Dr. Harris was appointed United States Commissioner of Education and he remained in that position until 1906, three years before his death in 1909.

Shortly after he withdrew from Yale College Dr. Harris became a serious student of philosophy. In 1867, he established in St. Louis, and became the editor of the Journal of Speculative Philosophy, the first periodical of its kind in the English language. He was an enthusiastic Hegelian and did more, perhaps, than any one else to make Hegelianism influential in American philosophy.¹ He was received with distinction at the Paris Exposition of 1878 and he represented the United States Bureau of Education at the Brussels Educational Conference in 1880. At the Paris Exposition of 1889 Dr. Harris received from the French government the honorary title Officier de l'Instruction Publique in recognition of his services to education. He served as president of the National Educational Association in 1875 and appeared as a featured speaker at the annual conventions of the Association at almost every meeting between 1867 and 1907. His voluminous writings consist of books, articles in periodicals, published ad-

¹"William Torrey Harris," The New International Encyclopedia, Vol. X, 2d ed.

resses, and nearly fifty volumes of annual reports issued while he was the executive officer of the St. Louis public schools and of the United States Bureau of Education.

As an author and a speaker Dr. Harris confined himself largely to the two general fields of philosophy and education. Nearly half of his writings dealt with practical problems of school administration. His selection as the chief editor of the popular Appleton School Readers and as editor of the fifty-volume International Education Series is evidence of his recognition as a practical school man. He was also the editor-in-chief of the edition of Webster's New International Dictionary which was published just prior to his death.

It was inevitable that Dr. Harris' philosophic persuasions should color his interpretation of the function of the public school. In the light of current educational theory, Hegelian idealism has intrinsic faults, but, in the skillful hands of its ardent American protagonist, it served as a catalyzing agent to precipitate an American educational system which recognized and thrived upon the inarticulate aspirations of the democratic society it was designed to serve.¹ Whether or not the scheme of public education which evolved was ultimately the most desirable for the nation is not a moot point so far as this thesis is concerned.

It is the purpose of this investigation to discover and to set forth the principles of administration advocated and endorsed by Dr. Harris and to portray his exemplification of those principles as they are revealed in his official records and reports. It is also the purpose of this study to educe the areas of administration which Dr. Harris patently attempted to influence in one way or another, to indicate the direction or slant of that influence, and finally, to evaluate the contributions of Dr. Harris to educational administration in general.

No claim is made that Dr. Harris was the originator of all the ideas and practices he espoused. Although it is reasonable to conjecture that many of these ideas originated in his fertile and definitive mind, it is possible to identify comparatively few as original with him. However, this fact does not detract from the significance of his contribution, for when he took up the

¹Curti, op. cit., pp. 346-47.

gauntlet for any cause, regardless of its source, he made it his own, literally as well as figuratively, embellishing it with his own philosophical idealism. Thus it is possible to attribute to Dr. Harris the general acceptance of many principles of educational administration, regardless of their origin; it was his vigorous sponsorship which tended to secure their subsequent adoption at large.

To secure the data for this study, all of Dr. Harris' writings dealing with the various aspects of administration have been analyzed and evaluated. The forty-five volumes of Annual Reports which he issued as Superintendent of Schools in St. Louis and as United States Commissioner of Education were studied for evidence of his views on administration. Also, the Official Proceedings of the Board of Public Schools of St. Louis, through the period of his incumbency, were studied for corroborating evidence.

Depending upon the nature of the data, several procedures have been followed in developing the materials of this investigation. In some cases, it has been possible to portray the genesis and development of Dr. Harris' concepts or practices over the period of his professional life. In some instances, Dr. Harris' ideas have been compared or contrasted with present day concepts so that agreements or variations could be noted. The chief method, however, has been to ascertain his ideas, to analyze his procedures, and from these to infer the principles of administration thus brought into focus. The summary chapter is an attempt to generalize further in the direction of evaluating the nature and significance of Dr. Harris' contributions to present day concepts and practices in the broad area of educational administration.

After the data were assembled and arranged into logical divisions for expository treatment it was found advisable to preface their development in each case with a certain amount of generalized historical background. Thus each chapter, dealing with a different phase of administration, is opened with a statement of the contemporary status of this aspect of administration at the time Dr. Harris came upon the public school scene. The orienting introduction serves the purpose of giving a proper perspective to the materials developed in each chapter and it tends to bring into bold relief the activities and ideas of Dr. Harris among his contemporaries. For rhetorical reasons, the inferences

as to the principles involved seldom are delineated in the body of the various divisions but are reserved to the final section of each chapter.

The researcher who deals exclusively with documentary sources is faced constantly with the problem of fragmentary evidence. His transcending responsibility is to select excerpts and illustrations and to make interpretations which are truly representative of the whole idea expressed in the original. The sample must reveal the substance of the cloth and its entire design. Otherwise, the synthesis, the re-creation of reality, must be an unfortunate distortion of the truth and a travesty of research. In this instance, the investigator has been fortunate in two respects. First, the writings of Dr. Harris are so voluminous that it has been possible in most cases to find not one but several expositions of the same idea. This precludes the necessity for inferences derived from single sources. Also, the restatement of the idea among the sources enables the investigator to proceed with added assurance that context had not been violated due to misinterpretation of the original statement. Second, the official records and reports issued by Dr. Harris supply corroborating evidence of a substantive nature in numerous instances. It should be added that on those occasions where the data were scanty or inadequate this fact has been noted. In every case, in both the descriptive and the interpretative phases of the study, the investigator has tried to maintain a scrupulous respect for the objective viewpoint; for errors in judgment he must perforce accept complete responsibility.

It is hoped that this study, in spite of its shortcomings, may be accepted as a contribution to the history of education, presenting a comprehensive account of the origin and development of modern administrative theory and practice so far as it may be traced to the influence of one man, Dr. William Torrey Harris.

CHAPTER II

THE THEORY OF ORGANIZATION, ADMINISTRATION, AND CONTROL OF PUBLIC EDUCATION

The resurgence of the common man, the flood-tide of the Jacksonian era, reached its ultimate expression in a popular demand for universal education. It was during the second quarter of the nineteenth century that the struggle was carried on and largely won for tax-supported, publicly controlled, non-sectarian common schools. It was not a clean-cut victory, however, and there were many die-hards who fought a spirited rear-guard action in the face of defeat.

It was the work of many years to convince the masses of people that the scheme of state schools was not only practicable, but also the best and most economical means for giving their children the benefits of an education; to convince propertied citizens that taxation for education was in the interests of both public and private welfare; to convince legislators that it was safe to vote for free-school bills; and to overcome the opposition due to apathy, religious jealousies, and private interests.¹

But such democratic education required the development of techniques and standards for its administration. An analysis of the purposes and functions of education in a democracy had to accompany, if not precede, the formulation of standard administrative practices. An interpreter was needed--someone to translate the hopes and ideals of the American people into the formation of an institution conceived to be the vehicle for their ultimate well-being. William Torrey Harris assumed the role of that interpreter. His postulates were two: the charters of the American concepts of social and economic organization, and the philosophy of Hegel. The philosopher conceived the principle and the practical executive translated principles into logical and systematic organization.²

¹Ellwood P. Cubberley, Public Education in the United States, p. 167. Boston: Houghton Mifflin Company, 1934.

²Luther A. Weigle, American Idealism, p. 296. The Pageant

The final battle for free public schools was fought largely on the issue of the purpose of education in a democracy and Dr. Harris had much to say on this subject. But even with the contest decided in the affirmative, there remained great and elusive problems of definition of policy in the areas of (1) layman control of a specialized institution, (2) the delegation of authority to professional administrators, (3) the relation of boards of education (and their executive officers) to the public, (4) the use of women teachers, (5) the education of boys and girls together (co-education), (6) the education of Negroes, (7) the support of private and sectarian schools through subventions of public funds, (8) the authority of boards of education to enforce regulations affecting the health and physical welfare of school children, and (9) compulsory attendance. For purposes of this study it is taken for granted that public policy has been defined, at least semi-permanently, in each of these nine areas. The nature of those policy concepts is a reflection, to a large extent, of the philosophy and eloquence of the educational statesmen of the last half of the nineteenth century.

It is the purpose of this chapter to delineate the ideas championed by Dr. Harris, in these nine areas, as an acknowledged spokesman for education during the greater part of this period.

Purpose of Education in a Democracy

Dr. Harris conceived of American democracy as not only a form of government but also as an institution for wealth-creation and property-holding, and a moral force in the world. He envisaged an idealized citizenry whose political, economic, social, and ethical ideals would be reconciled to a common pattern. The agency which was to achieve this condition was the American public school.

To achieve equality of opportunity.--The first premise upon which American independence and democracy was founded was that of equality of rights and privileges for all men. Dr. Harris used this argument in support of public education but he interpreted it to mean that all children should receive the same type of institutionalized training in public schools. The schools were to provide the children with a common fund of knowledge based upon

the accumulated wisdom of the race.

The aim of the State makes the District School the type of our educational system. It grows out of the demand that the masses, THE PEOPLE, shall all partake of the highest. . . . Only when the State is founded upon the distinct and explicit recognition of the inherent rights of all men to partake in the highest functions of their race, can education be permitted in its full, normal scope. Our own form of government professes to do this¹

Education has special functions to perform in any society: to give each individual the language of the social organization and the common stock of ideals which govern it.² "Not only has the citizen a right to demand as his privilege an education for himself; it is the right of each citizen to demand that all others shall be educated if they are to exercise the right of franchise."³

To achieve equality of opportunity and to assure a common foundation of knowledge, the course of study should be the same for all children. In America, said Dr. Harris,

We must not lose sight of the fact that a laborer here is a member of civil society and of the body politic. . . . We can never afford to sink the man in the laborer. . . .

I do not know of anything else that is peculiarly American in our institutions. This repugnance of ours to cast the youth into moulds so as to bring up guilds and trades, is American. We are determined to make the individual superior to his accidents and keep him so, and there is no other national ideal half so noble or half so potent.⁴

Thus public education should not be an institution to stratify society. On the contrary, it should provide the individual with the intellectual tools to rise to the station warranted by his abilities. There should be no distinction between the education provided for the child of the wealthy and the child of the poor; it should be the same for both in content, in quality and in

¹Wm. T. Harris, "The District School System," Journal of Education, II (March, 1870), 121.

²Harris, "What Shall We Study?" Journal of Education, II (September, 1869), 1.

³Harris, "Education a Necessity," American Journal of Education, VIII (August, 1875), 4.

⁴Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1870, p. 113. St. Louis: Plate, Ols-hausen and Company, 1871.

amount.

But poverty is not a crime, and it must not be treated like vagrancy and imbecility. It would be wrong to establish class-schools so as to separate the poor from the rich. Our schools should be democratic--good enough for the best and cheap enough for the poorest.¹

There is a two-fold relationship between the school and the state; first, the school must be considered as the means to realize our national idea of equality of citizenship for all; and, second, the school must be considered as the means of protection to the state from its enemies at home and abroad.²

Self-preservation of the state.--The government of a democracy finds it a decisive duty to provide schools at public expense for self-preservation rests on intelligent voters.³ The schools provide protection from "demagogism, with its bottomless abysses of corruption."⁴

It is not enough that society provides asylums, almshouses, hospitals, and prisons for those incapable of managing their affairs. Prevention is the best policy for the state. To this end the schools required by the state should see that no individual grows up incapable of self-support.⁵

Self-preservation of the state demands not only political intelligence on the part of the citizen but economic and creative intelligence as well. National prosperity, according to Dr. Harris, depends upon a favorable balance of trade with other nations--a position which is attained by superior craftsmanship and the productivity of the artisan, both of which reflect the potency of the public school.⁶

¹Ibid., p. 28.

²Harris, "The Public Schools as an Institution of Civil Society and the State," Seventh Annual Report of the Superintendent of Public Schools of the State of Missouri, 1872, p. 81. Jefferson City, Missouri: Regan and Carter, State Printers, 1873.

³Harris, "Education a Necessity," op. cit.

⁴Harris, "Educational Needs of Urban Civilization," Education, V (May, 1885), 446.

⁵Sixteenth Annual Report, op. cit., p. 28.

⁶Harris, "The Public Schools as an Institution of Civil Society and the State," op. cit., pp. 77 f.

In a nation whose population was growing rapidly by immigration the importance of assimilation of the democratic culture on the part of the polyglot new-comers became increasingly apparent. In St. Louis, which had a large number of immigrants from Germany, Dr. Harris arranged that German reading and penmanship be taught to children of these immigrants but English instruction was given in all subjects.¹ The evening schools provided opportunities for foreign speaking adults to learn the English language and the rudiments of an American education. "It is important . . . that the immigrant shall be educated in our best institutions, and 'Americanized' in the spirit of our free intelligence. Otherwise, he certainly will be 'Americanized' by the worst forms of our political corruption."²

But in a democracy all must be educated. The interest of property demands it, the interest of government demands it. And one generation of well educated people in a State forces upon all adjacent States the necessity of public education as a mere war measure--as a means of preservation of the State. . . . An ignorant people can be governed, but only a wise people can govern itself.³

To teach morality and self-discipline.--In a nation whose sovereignty resides in the people, each citizen should be expected to develop high standards of judgment and conduct. Dr. Harris believed that each citizen should live above the law and be governed by moral suasion rather than external authority. The school is the natural environment in which the transition is made from the necessary external authority of childhood to the realm of free action from personal conviction--the adult attitude.⁴

"Education must relate first to citizenship," said Dr. Harris, "the production of the human being that can live peaceably in our civilization and combine civilly with his fellow-

¹Fifteenth Annual Report of the Board of Directors of the St. Louis Schools, 1869, pp. 29-30. St. Louis: Missouri Democrat and Job Printing House, 1870.

²Report of the Commissioner of Education for the Year 1900-1901, I, xxxiii. Washington: Government Printing Office, 1902.

³Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1871, p. 58. St. Louis: Plate, Olshausen and Company, 1872.

⁴Harris, "The District School System," op. cit., p. 121.

men."¹

Almost above everything else Dr. Harris believed in the preservation of order and the safeguarding of property, both of which required a high degree of morality in the community. Consequently he held that the proper education of the young demanded the maintenance of the prescriptions of morality. It was his conviction that no agency could perform this function so well as the public school where the cardinal virtues of industry, punctuality, regularity, respect for the rights of others, and obedience to established authority were emphasized all the time.²

The discipline of our public schools, wherein punctuality and regularity are enforced and the pupils are continually taught to suppress mere self-will and inclination, is the best school of morality. Self-control is the basis of all moral virtues, and industrious and studious habits are the highest qualities we can form in our children.

A free, self-conscious, self-controlled manhood, is to be produced only through universal public education at public cost, and as this is the object of our Government, it is proper for our Government to provide this means and at the cost of the people.³

To awaken powers of self-activity.--In a democracy, education should excite and develop the powers of the pupil to self-activity.⁴ Our theory of government requires the individual to assume responsibility. A free school puts a premium on alertness and versatility and develops in each pupil aspirations and ambition.⁵ The progress of the world is marked by the extent to which education has preserved the self-activity of the individual; decay

¹Harris, "Industrial Education in the Common Schools," Education, VI (June, 1886), 608.

²Harris, "The Public School as an Institution of Civil Society and the State," op. cit., p. 77.

³Harris, "Education of Children at Public Cost," National Educational Association, Addresses and Journal of Proceedings, 1871, pp. 35-36. New York and Washington: James H. Holmes, Publisher, 1872.

⁴Harris, "The Theory of American Education," Journal of Education, III (January, 1871), 3-6.

⁵Harris, "The Growth of the Public High School System in the Southern States and a Study of Its Influence," Educational Review, XXVII (March, 1904), 268-69.

follows the loss of such activity.¹

"The work of education is the direct work of helping individuals to help themselves."²

To develop directive power.--Closely akin to self-activity, but on a higher plane, is the need for cultured "directive power," a phrase which Dr. Harris used much in the way the term "leadership" is used today. The fostering of "directive power" was given frequently by Dr. Harris as a justification for public high schools.³ In a society without caste or peerage it is necessary for each generation to produce its own leaders since none fall heir to authority. The school must develop not only the leaders of government but the leaders of all types of industry, commerce, the arts and trades. The increasing mechanization of industry and urbanization of society has created even greater need for more directive power as civilization has become more and more complex.⁴

The occasion for educated intelligence in a self-governed community is constant and unavoidable. But our industrial age increases the demand for educated directive power ten fold by its great and small business combinations. Companies for transportation, for insurance, for banking, for trading, for exporting and importing, for various forms of manufacturing and mining--all large combinations--demand an essential prerequisite, educated directive power, and the school only can furnish certain of the qualifications necessary.⁵

To maintain mobility of population.--A peculiar characteristic of American society is the freedom of its citizens to move or change jobs as frequently as they choose. This is a characteristic upon which Dr. Harris placed great value inasmuch as it demonstrated that the accident of birth could not count against self-determination in America where "the circumstances all invite the citizen to do the greatest deed in his power and receive his

¹Harris, "The History and Philosophy of Education," The Chautauquan, III (October, 1882), 28.

²Report of the Commissioner of Education for the Year 1893-94, I, xx. Washington: Government Printing Office, 1896.

³Seventeenth Annual Report, op. cit., p. 55.

⁴Harris, "Necessity of Public High Schools," American Journal of Education, VIII (July, 1875), 4.

⁵Harris, "Educational Needs of Urban Civilization," op. cit., p. 446.

wages therefor."¹ The schools then, he said, should give general instruction which is usable anywhere and in any kind of work.²

It is the greatest and most important service of our educational system to give people the power to re-adjust their vocations, and to climb up to better paid and more useful industries out of lives of drudgery. This is sufficient reason in itself for establishing a public school system.³

To preserve and create property.--There are several aspects of the relation of education to property. One of the arguments against gratuitous education was that it would be a step in the direction of communism. Dr. Harris replied that, on the contrary, it pointed towards private ownership of property and true public spirit because the educated man would desire larger and larger margins of individual action.⁴

Dr. Harris contended that "civil society, in its first aspect, exists for the creation and distribution of material resources. In this respect PROPERTY is its ultimate object and aim. . . . Education has a direct and definite relation to civil society in this its first and elementary aspect of providing for the creation and preservation of property."⁵ Not only does the individual prosper as a result of education but the State as a whole gains in wealth and in the priceless increase of individual ability by education.⁶ With increase of wealth the support of the schools becomes less burdensome; there is no basic threat to the American economy for public education will not deprive society of the services of "its hewers of wood and its drawers of water."⁷

To give technical training.--Dr. Harris did not advocate

¹Harris, "What Shall We Study?" op. cit., p. 1. ²Ibid.

³Harris, "The Growth of the Public High School System in the Southern States and a Study of Its Influence," op. cit., p. 268.

⁴Harris, "Excessive Helps in Education," Education, IX (December, 1888), 216.

⁵Harris, "The Public Schools as an Institution of Civil Society and the State," op. cit., p. 77.

⁶Harris, "The Education of the Negro," The Atlantic Monthly, LXIX (June, 1892), 735.

⁷Harris, "Education For and Against Caste," The Chautauquan, III (January, 1883), 194.

the teaching of trades or vocations in public school but he advocated a general education to such an extent that every individual would be able to direct and manage machinery. No apprenticeship on a particular machine was to be required but a general insight and understanding of mechanics was to be desired.¹ The technical training of the public school should open more doors of opportunity and contribute to the mobility of the worker--it should not restrict the training to that of a specialized trade or skill.

To remain responsive to social change.--The school has a special function in democratic society to keep it dynamic. Dr. Harris recognized the antithesis of a democratic state and a static economy. The public school should produce citizens who are intelligent enough, politically and economically, to anticipate and recognize the desirability of and the necessity for social evolution.²

With the great inventions of the age we find ourselves all living in a borderland. We are brought into contact with alien nationalities and alien forms of civilization. We are forever placed in antagonism with some environment, material or spiritual, and our endeavor must perforce be to effect a reconciliation--to unite the conflicting₃ ideas in a deeper one that conserves what is good in each.

Rationalizing Lay Control with Professional Operation

While the arguments proceeded over the purpose of education in a democracy the practical problems of administration and control came down on the shoulders of innumerable laymen as public school districts entrusted corporate powers to their boards of education. The state laws which made public schools mandatory seldom provided guidance or direction to the local functionaries. The city school boards were particularly in need of professional assistance--an aid which arrived with the appointment of superintendents. A few cities had appointed superintendents by 1867 but there was much variation in the scope of responsibility as-

¹Harris, "Educational Needs of Urban Civilization," op. cit., p. 446.

²Harris, "Necessity of Public High Schools," op. cit., p. 4.

³Harris, "The Use of Higher Education," Educational Review, XVI (September, 1898), 160.

signed to the superintendent. In most cases the board was reluctant to yield major administrative functions to the superintendent and his activities were largely restricted to purely instructional matters.¹ Dr. Harris had definite opinions as to the qualifications of board members and as to the range of duties and the responsibilities which should be administered through the superintendent of schools. At the time Dr. Harris became superintendent in St. Louis only two cities in the United States, San Francisco and Nashville, had officially designated the superintendent as the executive officer of the board.² But by the end of his career this title was generally adopted. It is ironical perhaps that Dr. Harris, one of the men who labored long and hard to bring school administration into the hands of professional school men, never was officially designated the executive officer of the St. Louis Board of Education. Without fiat, however, Dr. Harris became indubitably the de facto executive officer of his board within a very short time after his appointment.

Personnel of school boards.--It is characteristic of Dr. Harris that he looked upon board members as needing guidance and direction. To that end he analyzed the typical board as he came to know and observe them:

The average school board may be said to have three classes of men represented in its composition. First, the business men chosen from the class of merchants, bankers manufacturers, or professional men who have no personal ends to serve and no special cause to foster or protect other than the general efficiency and business management of the schools. Second, there are the men representing the element of reform or change, and who have some pet scheme that they wish to introduce. These men are honest and well-meaning, but their enthusiasm is prone to lead them to a biased conclusion and produce an unbalanced judgment regarding educational values. A third class of men, that gets represented nearly always on a school board, is the self-seeking or selfish men who have ends of their own to accomplish and for which they are willing to sacrifice the efficiency of the schools. This element usually enters the board as a result of partisan politics, and varies in its amount according to the influence of politics in the government of the schools.³

¹Thomas McD. Gilland, The Origin and Development of the Power and Duties of the City-School Superintendent, pp. 123-24. Chicago: University of Chicago Press, 1935.

²Ibid., p. 154.

³Harris, "City School Supervision," Educational Review, III (February, 1892), 168.

The conservative business man, said Dr. Harris, makes the best board member but the balance of power usually lies in the second element, "the honest but unbalanced men," and it is this group which the superintendent needs to study carefully and to educate into broader views.¹ While Dr. Harris tended to be conservative he was not blind to the need for progressive improvement and he pointed out that the "reform element" elected to school boards frequently has something of merit to contribute to the schools. In fact he stated that it was from this group that progressive ideas for improvement usually come.²

The more carefully the superintendent organized the instruction the more complicated the board found its duties becoming. In St. Louis, as in many other cities, this problem was first met by enlarging the number of board committees. It is interesting that Dr. Harris was listed as a member of the board committee which recommended this type of adjustment with the formation of committees on the course of study, examinations, and promotions.³

The chief service rendered by Dr. Harris to educational administration in rationalizing professional operation with lay control resides in his demonstration of how effectively a professional man could work with and secure the support of a board of laymen to develop a school system to the point where its organization and methods were recognized as outstanding in the nation.

Professionalizing the Superintendency

One of the factors which expedited the release of administrative functions to the superintendent was the growth in status of his office as the superintendent took on the bearing of the specialist, the expert, on all matters pertaining to education in the community. There were few if any landmarks to guide the new members of the emerging profession. Most superintendents were content to follow strictly the lines of activity outlined for

¹Report of the Commissioner of Education for the Year 1895-96, I, xxiii. Washington: Government Printing Office, 1897.

²Ibid.

³Official Proceedings, Board of Public Schools, St. Louis, I (March 19, 1872), 146.

them by their boards without exploring the wider opportunities of their positions.¹ Dr. Harris had a vision of the potency of the superintendency and he proceeded to analyze the logical duties and responsibilities of the superintendent as a natural leader to promote the cause of the common schools in America.

From the theoretical standpoint, said Dr. Harris, "the superintendent is a specialist in matters of education."² He is in a position to determine what the school ought to do for the children and he should discover the best means to accomplish that end.³

Analysis of the superintendent's function.--Considering the scientific attitude of Dr. Harris it was natural that he should make a case study of his own work. In his second Annual Report such a study is outlined. He pointed out that the pressure of his office duties infringed upon his more important function of superintending instruction. As he analyzed it, his office work was complicated by irregularities which were extraordinary in character and demanded immediate attention.

Proper courtesy to the community demands that the office shall be kept open all day for consultation. The following classes of persons call to confer with the Superintendent:

- I. Parents who wish to enter their children into the schools, and want information regarding the proper course to take.
- II. Parents who wish their children transferred from one school to another, or who wish to enter complaints against teachers, or to obtain the restoration of some pupil suspended from school.
- III. Strangers visiting the city for the purpose of inspecting our school system.
- IV. Members of the Board wishing some item of information or correction of some abuse they have discovered.
- V. Teachers who wish to refer some difficult point for decision, or get authority for some irregular procedure, or to give the details of some troublesome case, or, finally, to prefer some request.

This part of the Superintendent's duties requires on an average several hours each day through the year, and cannot be neglected for anything else.

The preparation of the quarterly and annual reports, making summaries of the several reports that come in, the making

¹Harris, "Revolution in Course of Study," American Journal of Education, VII (June, 1874), 3.

²Bureau of Education, Circular of Information, No. 2, 1882, p. 98. Washington: Government Printing Office, 1882.

³Ibid.

out of pay-roll each half quarter, the supplying of vacancies that occur daily by sickness or other causes in the corps of teachers (numbering four hundred)--all these are duties that cannot be neglected. But the little time that remains after these things have been properly attended to, must be vigorously used if the schools are to be visited often. Thus it happens that accidental, incalculable, and extraordinary duties absorb time from the very necessary work of supervision of methods--a work wherein it would be supposed that the time of the Superintendent is most valuable.¹

In 1874 Dr. Harris outlined the functions of county superintendents: (1) To confer with other school officers and directors, with the state superintendent, the county clerk and treasurer, with local school boards; (2) to examine teachers and award certificates to teach after ascertaining that candidates knew how to grade and classify a school, assign lessons of proper length, direct study habits, work harmoniously with school community and possess sufficient book knowledge to teach; (3) to visit schools and inspect the grading and classification, the method of instruction, the deportment of the pupils, and the spirit of the district toward the school; (4) to give educational lectures; and (5) to arrange and hold institutes.² While this list appears quite elementary today it had great import at the time it was published.

In 1892 Dr. Harris noted how the superintendent's duties had evolved from that of handy-man to the board of education--had acquired functions in connection with the course of study, with management of facilities, purchasing of supplies, keeping records, supervising construction, and tabulating statistics--to that of the work of an educational expert administering most, if not all, the activities of the board of education but, most important of all, he had become the shaper of educational thought of the community.³ "A mere 'philosophic-theoretic' superintendent, who confines himself to examining pupils, and discussing methods of instruction and discipline, would prove a failure. He may reasonably be relieved of the mechanical drudgery, but he should retain the supervisory control over its performance."⁴

¹Fifteenth Annual Report, op. cit., pp. 132-33.

²Harris, "The County Superintendent," American Journal of Education, VII (January, 1874), 3-4.

³Harris, "City School Supervision," op. cit., p. 167.

⁴Ibid.

The superintendent's functions, as Dr. Harris viewed them, in the areas of the course of study, supervision, finance, records, and research are considered in detail in later chapters. In each case his contributions may be construed as leadership in the direction of professionalizing the superintendency.

Personal qualities of the superintendent.--It is necessary for the superintendent to have genuine political skill, according to Dr. Harris, because it is his function to keep harmony and agreement on policy among board members with many divergent interests and points-of-view. If the superintendent's skill is not sufficient to perform this function "without deceit and demagoguery it is not genuine political skill, but a piece of political corruption, not to be justified by any temporary success in defending a good cause."¹ It is necessary for the superintendent to listen patiently to the discontented, the critical, and the opinionated. In his endeavor to be fair-minded and to educate the mis-informed board members and the public, the superintendent educates himself in open-mindedness if he is consistently honest in his dealings with other people. He must not succumb to the temptation to be opinionated or to deal with personalities rather than issues no matter how worthy he may consider his cause.²

The superintendent's attitude toward changes.--In spite of his tendency toward conservatism Dr. Harris held that it is not the function of the superintendent to channel education into pat procedures but neither should he vacillate with every fad and fancy that comes along. In considering changes his attitude was that a constant reference should be made to the purpose or function of the branch under discussion and the possible consequences of making proposed changes. "A blind process that moves from one condition to another without adequate reasons, is to be avoided, if possible."³

Much of the progress in administration and in instruction may be expected to come from the "reform element" on the school board--the men elected on a platform of some pet scheme. The superintendent, instead of ignoring or ridiculing these pet ideas, should listen with patience and open-mindedness to the protago-

¹Ibid., p. 170.

²Ibid., p. 169.

³Harris, "Revolution in Course of Study," op. cit., p. 3.

nists. If the idea has merit it should be analyzed to delete any element which would be inimical to the system and modified, if necessary, and adopted.¹

Hence, in this dangerous and difficult part of his duties, the superintendent must go no faster than he can see his way to in perfect frankness and honesty. He must espouse sincerely so much of the proposed reform as he finds salutary to the school system under his charge. This policy will lead to a slow and beneficial change in the educational system and to the addition of features which will prove permanent elements of strength and perfection.²

The first-class superintendent is a sort of pilot for the whole system, and must watch the rocks and breakers and the winds and clouds of public opinion and ascertain the drift of his course. The educational journals give him the trend of education elsewhere. He has to direct his own labors and the labors of all his teachers toward making their schools strong in the community. First, the teachers must do good work, and second, they must make the community feel that it is good work. To neglect public opinion in a representative government is to rebel against it and court defeat and discomfiture. The teachers must not do anything except what they conscientiously believe to be right. But it is their duty to show to their clients, the people, the grounds of their conviction and the efficiency of their work.

The efficient superintendent therefore sets into working order these educative influences to support the one great work of education in the school system, namely, an educative influence for the members of the school board leading toward correct insight and the adoption of wise measures; second, an educative influence resulting in the acquisition of good methods, a growth in personal self-control, and besides these, progressive studies in literature, art, and science; third, for the community an enlightened public opinion, which knows what the schools are actually doing and can intelligently explain their merits and defects, and tell what changes are desirable for onward progress.³

Public Relations of the Superintendent

As indicated in the foregoing section, Dr. Harris felt it the superintendent's obligation to keep in close contact with the public. A specific element of the public which Dr. Harris singled out as especially important for the educator to know and mingle

¹Report of the Commissioner of Education for the Year 1895-96, op. cit., p. xxiii.

²Harris, "City School Supervision," op. cit., p. 169.

³Report of the Commissioner of Education for the Year 1895-96, op. cit., pp. xxv-xxvi.

with was the capitalists.¹ This opinion was stated as a comment on the exhibit of manufacturers at the National Educational Association Convention of 1871 and the value accruing from the educators being entertained and taken on tours through industrial establishments in St. Louis.

In an address to the Department of Superintendence in 1882, Dr. Harris declared:

The superintendent of schools finds it his most important duty to create and foster an enlightened public opinion in regard to the province and functions of the system of education under his charge.

Where the people furnish the material means to support the school and choose teachers and superintendents to direct and manage it, public opinion marks out the limit of development, for the teachers and superintendent must represent the will of the people. They cannot successfully establish measures not approved by the community. . . .²

Again, eight years later, Dr. Harris reiterated, "I hold that by making the schools strong in the community you can make that community pay for those schools. . . . My main point is to make your schools so strong in the community that the people will be bound to support them in anything within reason."³

Sex and Pedagogy

At no time did Dr. Harris question the right or the ability of women to teach in public schools. He did make a noticeable differentiation, however, in his salary schedule between men and women instructors as is pointed out in Chapter IX. Dr. Harris justified women teachers partly on the basis of economy--that they could be employed at a lower salary.⁴ This was not his only justification, however, for he occasionally commented on the superior type of discipline which women tended to use.⁵

¹Harris, "The National Education Association," Journal of Education, IV (September, 1871), 8.

²Bureau of Education, Circular of Information, No. 2, 1882, op. cit., p. 98.

³Report of the Commissioner of Education for the Year 1890-91, II, 1048. Washington: Government Printing Office, 1894.

⁴Fifteenth Annual Report, op. cit., p. 32.

⁵Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, p. 80. St. Louis: Democrat Lithographing and Printing Co., 1873.

In my experience, I have found that women are usually better disciplinarians than male teachers. . . . Women in charge of children are found to have a superior gift for securing discipline by mild means. . . . I do not mean to say that women can do all the work of teaching better than the men; but in this matter of discipline I think that they are superior in that they can hold pupils to their work and secure lady-like and gentlemanly behavior with what seems to be a less expenditure of strength.¹

In the St. Louis system Dr. Harris used women teachers exclusively in the elementary grades. A majority of the high school teachers were women and many women teachers were promoted to positions as supervising principals and supervisors.

Upon Dr. Harris' return from the International Education Congress at Paris in 1889 he reported, "It was noticeable that the women teachers present in the congresses made a strong presentation of their side on all questions in which sex concerns education."²

Co-education

The public school to be effective and truly democratic needed to overcome a prejudice in the matter of mixed schools. A certain element of the people objected to having boys and girls attend the same schools. The St. Louis schools went through the experience of separating the sexes in all their grammar schools up to 1858. In that year a new grammar school was opened as a mixed school. The other grammar schools were gradually changed over.³ Dr. Harris commented,

I had noticed that the atmosphere of "mixed" schools was de-sexualized, where that of separate schools seemed to have a tendency to develop sexual tension. Again, whatever tendency toward indecency might manifest itself was far more easily checked in "mixed" schools by reason of the crossfire of watchfulness which made intrigue far more difficult to keep secret.⁴

¹National Educational Association, Journal of Proceedings and Addresses, Session of the Year 1894, p. 483. St. Paul: Pioneer Press Co., 1895.

²Report of the Commissioner of Education for the Year 1889-90, I, xvi. Washington: Government Printing Office, 1893.

³Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1873, p. 105. St. Louis: Democrat Lithographing and Printing Co., 1874.

⁴Ibid.

In his Annual Report for 1870 Dr. Harris developed a considerable section on "The Co-Education of the Sexes."¹ He held that both theory and practice had demonstrated the advantages of co-education within the limits of certain ages, which he did not define, but the practicability of the extension of co-education to different ages or to other sections of the country was a matter which needed further investigation. [This was the most cautious statement in Dr. Harris' record on this subject; his later comments held practically no qualifications or reservations.] It was Dr. Harris' opinion that western cities would take the lead in providing mixed or co-education because "old cities like New York and Boston may move very slowly in this direction, because of the enormous expense required to change buildings and school-yards for mixed schools."² Co-education justified itself in St. Louis, said Dr. Harris, on the bases of: (1) economy, because of larger classes and the better classification which resulted; (2) improved discipline; (3) improved instruction, because of the improved tone of the schools; and (4) individual development was "far more sound and healthy. . . . Sudden likes and dislikes, capricious fancies and romantic ideals give way for sober judgments not easily deceived by mere externals."³

The opponents of co-education seldom objected to mixed primary schools but they disliked mixed grammar schools and opposed coeducational high schools. It was singular that St. Louis experimented first with co-education in the high school and later extended the system downward.⁴

In his Annual Report for 1873 Dr. Harris developed the argument that co-education is better than separation not only on the basis of morality but also on the basis of intellectual development.

Man thus is continually ascending into the realm of thought and directive power. In this region there is no longer any modified physical nature. Ideas are neither male nor female, they are universal. So, too, is directive power. Culture in universals is the necessary education for it.

While in the division of labor the feminine organization has special adaptations, and special unfitness for one sphere or another; on the contrary, in the world of directive ac-

¹Sixteenth Annual Report, op. cit., pp. 17-18.

²Ibid.

³Ibid.

⁴Ibid.

tivity, the special fitness or unfitness arising from sex is a vanishing element, and there approaches an ideal wherein a concrete identity of spheres and vocations is to be found. Not that this implies annihilation of nature and sex, but only a complete and thorough subordination of them, just as now it is quite as feminine as masculine to attend school and learn to read. Sex will always remain in its narrow sphere, its modifying tone or tinge will extend into several higher spheres; but in science, in religion, and art its effects will be scarcely traceable. . . . Out of social changes arises the necessity of modifications in our system of education. The demand of women for equal advantages in education with men is not a mere temporary demand arising out of the sentimentalism incident to the epoch, but only an index of the social movement that underlies our civilization. The demands on the woman of the present day are such as to compel her to educate herself in science, art, and history. Her natural proclivity to versatility and alertness of mind fit her in a peculiar sense for the sphere of teacher of children. . . . To enter into the spheres of productive industry opening for her; to assume the place of director in the management of the family economy now offered her in exchange for that of drudge; to fill her sphere of hostess and conversationalist in polite society; to fill the sphere of teacher in the school; to enter into the literary domain recently conquered by such writers of social novels as George Eliot and George Sand, or into the art domain of music and the drama, conquered long since; all these conspire to demand for women discipline, insight, and information studies such as are necessary to initiate man into the "conventionalities of intelligence." The demand for the same course of study is paramount, that for co-education subordinate, although of considerable importance.¹

In 1879 Dr. Harris noted that two-thirds of the pupils in the higher grades were girls and that, by and large, they had vindicated their scholarship beyond any question of doubt.² He used the high ratio of girls as one of his arguments against industrializing the course of study.³

Finally, Dr. Harris generalized his position on the education of women in an article for the Educational Review in 1900:

It is the participation of women as an active influence in political affairs that promises to hasten the realization of a government which adopts the principle of nurture in the place of abstract justice in dealing with the weaklings [criminals, paupers, etc.]. The preventive function is needed

¹Nineteenth Annual Report, op. cit., pp. 105-106.

²Twenty-fifth Annual Report of the Board of Directors of the St. Louis Public Schools, 1879, p. 74. St. Louis: G. I. Jones and Company, 1880.

³Ibid.

quite as much as the punishing function of the municipal government. Women's advice and aid in the administration of this function has long been desired. The present movement toward the superior education of women will do much to hasten this good result.¹

Education of the Negro

Public agitation over the question of educating the Negro was to be expected during the decades following the war between the States. Emancipation in the broadest sense entailed the provision of comparable opportunity to the colored race. To the Northerner this meant attendance in the same public school with white children. To the Southerner it meant segregated schools and the most limited opportunity for culture and institutionalized training for the freedmen and their children.

St. Louis was a borderline city but separate schools for colored children were required by the Missouri State Constitution. In 1874, the board of education was much exercised by a Civil Rights Bill proposed to the Congress. The minutes show that:

Mr. Lippman offered the following preamble and resolutions:

Whereas, a bill has been introduced into the National Congress, and has passed one of its branches, and is now awaiting its passage in the other, which bill, called the Civil Rights Bill, among other provisions, ordains that all public or common schools, supported wholly or in part by taxation, shall admit equally colored and white children to the same rooms and classes.

Whereas, provision has been made by this board for the education of colored children in separate schools of a quality as good as that required and secured in the schools for white children, and

Whereas, the provisions of said Civil Rights Bill would, if carried out, work irreparable injury if not total destruction to the public school system in St. Louis, as well as in other cities of our section, and throughout the South, by causing the withdrawal of large numbers of white children from the public schools, and by strengthening the adversaries of public schools to such an extent as to secure the repeal of the public tax by which said schools are supported; therefore be it

Resolved, That on behalf of this board a memorial be prepared by the president and superintendent and directed to the Senators and Representatives from Missouri, urging upon them the importance of immediate action in the premises with a view to secure such amendments to the civil rights bill as

¹Harris, "The Relation of Women to the Trades and Professions," Educational Review, XX (October, 1900), 228.

shall relieve all schools from the necessity of admitting both races to the same rooms and classes, wherever equal provision has been made for the education of each in separate schools.

Resolved, That a copy of these resolutions be sent to the school boards of neighboring cities threatened with the same danger, and an invitation extended to them to co-operate with this board by similar memorials.

Mr. Schweickhardt moved to amend the last resolution by adding that a copy of the resolutions be sent to the President of the United States.

The amendment was accepted.

The resolutions were then adopted by the following vote:
Yeas--19; Nays--2.¹

It is not clear what part Dr. Harris played in this episode but it is probable that he concurred with the opinion expressed by the board. At least he was made a party to the memorial by the wording of the resolution.

In 1875 the board considered the employment of colored teachers for colored schools. There was heated discussion pro and con but the resolution was laid on the table.² Also, in 1875, while the board was exploring all avenues to reduce costs, the question of discontinuing the high school for Negroes was considered. The board attorney was asked for his opinion on (1) the legal right of the board to discontinue the high school class in Colored School No. 3; (2) the legal right of colored children, in case such discontinuance took place, to demand admission into the Central High School or branch high schools; and (3) the legal obligation of the board to maintain a high school for colored children. The attorney's opinion was that separate schools had to be maintained for colored children.

The law imposes upon this Board the obligation to provide for and maintain a separate high school for colored children in this city, and that a total discontinuance of such school is not within the legal power of the Board. That . . . while the colored people may enforce the maintenance of such separate high school by appropriate legal proceedings, the Board cannot be forced to admit colored children into the Central or Branch High school in any event.³

In 1878 the practice was inaugurated of hiring colored

¹Official Proceedings, Board of Public Schools, St. Louis, I (June 9, 1874), 340 f.

²Ibid., II (June 8, 1875), 34.

³Ibid. (September 14, 1875), p. 59.

teachers for colored schools and in the Annual Report for that year Dr. Harris commented: "The result has been in every way favorable. The attendance has increased forty per cent on the number enrolled in these schools last year."¹ In Dr. Harris' Quarterly Report to the board, March 11, 1879, he included the statement:

The colored schools continue to show a marked increase in enrollment and attendance due, no doubt to the popularity of the measures you have inaugurated to supply those schools with colored teachers--a measure which has been attended with extra-ordinary success as regards the ability displayed by those you have employed.²

In Dr. Harris' next Quarterly Report to the board, May 11, he made an analysis of the colored pupils attendance, noting that

. . . . for the first four years the number enrolled in the several grades bears about the same proportion to the whole as the white pupils in the same grades do. But in the fifth year's work there are only one half--or a little more--of the number that we find in that grade among the white pupils, out of each 100. The ratio of pupils in the sixth year's work is still less in favor of the colored children. In the seventh year the ratio of white pupils is four times as favorable as the ratio of colored pupils. These facts prove only that the colored children are removed from school after learning the rudiments of reading, writing and arithmetic, and that they do not find interest in grammar and geography that the white children do. It is probable, too, that the studies requiring greater persistence of mind, greater power of combination, are yielded to or given up as insurmountable by a greater proportion of colored pupils than of white pupils. But in the case of our colored teachers we find that the example of those who have attained a high proficiency in classical and scientific studies is a very powerful influence upon their pupils, in the fact that what they see one of their race to have accomplished is a convincing proof to them that they are not debarred from such heights of accomplishment by the nature of their intellects.³

This concludes the record of Dr. Harris' practical dealing with the education of Negro children. It is quite evident that, while observing the legal limitations, his efforts were directed toward giving the Negro race equal educational opportunities and

¹Twenty-fourth Annual Report of the Board of Directors of the St. Louis Public Schools, 1878, p. 128. St. Louis: Max Ols-hausen, Printer, 1879.

²Official Proceedings, Board of Public Schools, St. Louis, III (March 11, 1879), 197.

³Ibid. (May 13, 1879), p. 230.

building up their self-assurance. After Dr. Harris left St. Louis his comments on Negro education became even more liberal.

Dr. Harris took the position that the Negro in America was not an African any longer but an American who had acquired Anglo-Saxon consciousness through several generations of domestic servitude in white families.¹ The chief problem of the Negro, as he analyzed it, was to acquire "the sense of personal responsibility, moral dignity and self-respect which belongs to the conscious ideal of the white race" and education was indicated as the means to that end.² Education of the Negro should be both intellectual and industrial--particularly instruction in arts and trades and in habits of thrift for "the Negro must teach himself to become a capitalist."³ Also, "The Negro cannot share in the white man's freedom unless he can learn to manage machinery. Nothing but drudgery remains for a race that cannot understand applied science."⁴

Dr. Harris was concerned that there should be a higher percentage of educated and cultured Negroes as a leavening element in the race. To that end he pointed out that money expended for secondary and higher education of Negroes accomplished much more for them than a similar expenditure accomplished for white persons and he advocated both state and federal aid for secondary and higher education of the Negro.⁵

As the Commissioner of Education it was Dr. Harris' great concern to provide more and better facilities for the education of the colored race. He knew that the Negroes did not have the resources to provide these improvements and that outside influence and means would be required. "Many of the schools adopt all sorts of expedients to make room for applicants begging for admission, allowing them to sleep on cots in the halls, making use of old buildings . . . no longer fit for occupancy and very generally crowding the students in excessive numbers in the buildings assigned for them."⁶

Dr. Harris' ideal for the education and elevation of the

¹Harris, "The Education of the Negro," op. cit., p. 723.

²Ibid. ³Ibid. ⁴Ibid., p. 729. ⁵Ibid., p. 733.

⁶Report of the Commissioner of Education for the Year 1889-90, op. cit., II, 1091.

Negro as an integral part of the American public is epitomized in the concluding paragraph of his article on "The Education of the Negro" in The Atlantic Monthly:

With the colored people all educated in schools and become a reading people interested in the daily newspaper; with all forms of industrial training accessible to them, and the opportunity so improved that every form of mechanical and manufacturing skill has its quota of colored working men and women; with a colored ministry educated in a Christian theology interpreted in the missionary spirit, and finding its auxiliaries in modern science and modern literature--with these educational essentials, the negro problem for the South will be solved without recourse to violent measures of any kind, whether migration or disfranchisement, or ostracism. Mutual respect for moral and intellectual character, for useful talents and industry, will surely not lead to miscegenation, but only to what is desirable, namely, to civil and political recognition.¹

Public Schools vs. Private and Sectarian Schools

There were many vested interests to be overcome in the establishment of public schools. The advocates of sectarian and private schools had many arguments for their propagation and every argument for the non-public schools was tantamount to an argument against public schools. While the tide of public sentiment for public schools grew in volume and force the public depended for leadership upon a few articulate individuals. That there was no compromise with either the parochial or the private schools is largely due to the forceful and convincing arguments of those individuals.

Dr. Harris analyzed the situation in 1870 that the advocates of secular private schools claimed that the public schools were established for the poor people who were unable to pay tuition and that the wealthy class would not patronize them; the advocates of the parochial schools claimed that the public schools did not provide for the poorest class of children but that religious groups were still relied upon to provide not only schools for them but also orphan homes, asylums, and hospitals as well. On this basis they claimed a share of the public school money. Dr. Harris concluded:

If the lesson of history has taught us anything, it is that the separation of Church and State is the safeguard of

¹Harris, "The Education of the Negro," op. cit., p. 736.

individual liberty. . . . Let the community see to it that our public schools are free from sectarian bias of whatever kind, and then the Church, by its appropriate instrumentality, will best perform its mission.¹

Another argument which Dr. Harris felt called upon to refute was that the public school, being for the masses who are destined to fill the ranks of common laborers, should provide a semi-technical education and avoid purely disciplinary studies. A corollary argument was that the disciplinary studies should be reserved to the private schools which would prepare a selective class of students for the colleges and the professions.² This argument which was anathema to Dr. Harris is further considered in Chapter IV.

In 1876 there was great public interest in a constitutional amendment recommended by President Grant

. . . . requiring each of the several states to establish and maintain free public schools, adequate to the education of all children, forbidding religious or anti-Christian instruction in the same, and prohibiting the diversion of any public funds for sectarian purposes; also making education compulsory to the extent of disfranchising the illiterate who attain their majority after 1890.³

Dr. Harris commented that passage of this measure and another one on church taxation, recommended in the same presidential message, would rid our nation effectually of all future collisions with ecclesiastical powers.⁴ In the same article, published in The Atlantic Monthly, Dr. Harris outlined all the difficulties that would arise if the civil government attempted to divide school funds among religious schools in deference to those "pious people who suppose that to bring the common schools under religious control will aid the state by preparing for it large numbers of good men." The chief difficulties which Dr. Harris listed were: (1) how to arrive at a pro rata share for the "indifferent" people or disbelievers in religion; (2) the problem of establishing stand-

¹Harris, "Who Patronize the Public Schools," Journal of Education, II (February, 1870), 103-104.

²Harris, "A Course of Study from Primary School to University," The Western, n.s., II (September, 1876), 525.

³Harris, "The Division of School Funds for Religious Purposes," The Atlantic Monthly, XXXVIII (August, 1876), 38.

⁴Ibid.

ards of division; and (3) the administration of the division when the members of the governing body belong personally to some one class of believers and are vulnerable, as such, to suspicion of partiality.¹

An interesting situation arose in St. Louis in 1873-74 when the board of education sold approximately five hundred dollars worth of old furniture to Father Archer of the St. Patrick school of the same city. The Catholic Father paid one hundred and fifty dollars on the account and disregarded further bills. When the Board's Bailiff approached him on the matter he stated that he had no intention of paying the bill "on the ground that he looked upon the Catholic schools as public schools, and that they were entitled to furniture from the School Board of St. Louis, the same as other public schools."² The board of education thereupon started to take legal action and the bill was paid with a slight compromise in the amount.

In regard to religious instruction in the public schools Dr. Harris said,

The taxes levied for the support of our schools, are paid by all denominations alike, and each has the right to have its feelings respected. While we profess to give the secular and moral elements of education, we as distinctly disclaim all religious tuition. . . . But the public school system does not come between the parent and child in matters of individual conscience, but only performs functions that are strictly of a universal character. . . . These are in all cases auxiliary to religion and never in hostility to it.³

In the Annual Report of 1872 Dr. Harris stated: "I cannot find that our schools have ever since their foundation in 1838 permitted so much as the reading of the Bible in them. I believe that this perfect secularity has done much to bring about the perfect intermingling of all denominations in our schools which has existed for so long."⁴

In 1873 the St. Louis Board of Education adopted a rule which prohibited the use of school buildings during the summer va-

¹Ibid., p. 173.

²Official Proceedings, Board of Public Schools, St. Louis, I (February 10, 1874), 312.

³Sixteenth Annual Report, op. cit., p. 10.

⁴Eighteenth Annual Report, op. cit., p. 17.

cation for the purpose of holding private schools. The rule was made permanent in 1874.¹

In an address to the National Educational Association in 1903 Dr. Harris succinctly summarized his attitude concerning sectarian schools:

It is better for the state to have children of the community mingle in the common school, and the barriers of religious caste should be broken down so that a universal spirit of toleration shall come to exist. Children of all confessions should mingle in the common school and learn to know and to respect and love one another. This is necessary moral education. The parochial school runs the risk of creating a feeling of caste that is not truly religious.²

Dr. Harris did not consider the private school such a threat to public education. His concern in this connection was that classical and cultural training did not become the exclusive domain of the private school. This also is developed further in Chapter IV. One of Dr. Harris' early criticisms of the private school was its tendency to develop superficiality and conceit on the part of the child.³ On other occasions he warned against the danger of caste consciousness being developed in the private school but later he took the position that private schools serve a very useful function in providing a field for experimentation in methods and in providing a safeguard against a parsimonious policy in the management of the public schools.⁴

The ordinary private school is in some sense a good spur on the public school boards to increase the efficiency of their schools. In case a school board gets niggardly in its provisions there begins to flourish the private institution and the community is thus warned to adopt a different policy.⁵

¹Official Proceedings, Board of Public Schools, St. Louis, I (June 9, 1874), 339.

²National Educational Association, Journal of Proceedings and Addresses, 1903, p. 354. Chicago: University of Chicago Press, 1903.

³Fourteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1868, p. 96. St. Louis: George Knapp and Company, 1869.

⁴Report of the Commissioner of Education for the Year 1890-91, op. cit., I, xii.

⁵Harris, "Our Educational System," The Chautauquan, XV (April, 1892), 20.

Compulsory Attendance

During the period of Dr. Harris' professional life the public in general was not yet convinced of the necessity for compulsory attendance. As early as 1870 he recognized that compulsory education while desirable from many standpoints was impractical at that time; laws which projected the authority of the state into locus parentis, the home and the family, could only be promulgated in a democracy when the majority of the people were convinced that it was necessary in order to secure the conformity of the minority.¹ It is possible also that Dr. Harris considered the physical impossibility of housing and teaching all children in view of the strain occasioned by the increase in voluntary attendance from year to year.

In 1875 Dr. Harris restated his argument that every citizen has a right to demand not only the privilege of an education for himself but also the right to demand that all others be educated as a qualification to exercise the right of franchise. Compulsory education, he said, is demanded by this principle.²

Providing for Student Health

The authority of boards of education as it pertained to safeguarding the health and well-being of pupils was a moot question. However, a new trail was blazed in St. Louis in 1871 which demonstrated, first, how the board of education could work in harmony with another civil agency, the board of health, in time of crisis; second, how the schools could be used as an agency to control the spread of contagious disease; and, third, the authority of the board of education to require vaccination as a condition of entering or continuing in school.

The occasion was during the epidemic of smallpox in 1871. The board of health, through its clerk, requested the board of education to require all pupils to be vaccinated and the board of education empowered the superintendent, Dr. Harris, to carry out the wishes of the board of health.³

¹Harris, "The National Education Association," op. cit., p. 8.

²Harris, "Education a Necessity," op. cit., p. 4.

³Official Proceedings, Board of Public Schools, St. Louis, I (November 28, 1871), 111.

The following year, 1872, the board of health requested a continuation of the requirement for vaccination of all pupils and employees of the public schools. The board of education responded by employing three physicians to visit the various schools to carry out the request of the board of health.¹

The importance of school hygiene was called to the attention of the local public and school authorities of other cities in Dr. Harris' Annual Report of 1874. Several pages were devoted to this subject. Dr. Harris quoted authorities from all over the nation regarding the several phases of school hygiene and summarized a Report of the State Board of Health of Massachusetts which emphasized the relation between proper building plans and sanitary facilities and the health status of the pupils.²

Dr. Harris' ideas concerning hygienic conditions in the classroom are developed further in Chapter VII. The record is clear that he sanctioned the use of the school as an agency to secure and maintain the health of the individual pupil and of the community at large.

Summary and Conclusions

In the development of the theory of organization, administration, and control of the American public schools, a multitude of individuals and agencies were active and influential. It is possible, however, to ascribe to certain leaders the responsibility for originating or developing specific ideas and concepts which became widely accepted. The stature acquired by Dr. Harris among educators is a measure of the importance other people attached to his interpretations of the purposes and functions of the public schools.

The principles advocated by Dr. Harris in developing his theory of public education in a democracy were:

1. The purpose of education in a democracy should be the creation of an ideal society:
 - a. Education should implement the achievement of equality of opportunity for all--one of the premises upon which our government was founded;

¹Ibid. (November 12, 1872), p. 213.

²Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools, 1874, pp. 106 ff. St. Louis: Democrat Lithographing and Printing Company, 1875.

- b. Education should insure the self-preservation of the state by nurturing citizens with an adequate background of political and economic intelligence;
- c. Education should produce moral and self-disciplined citizens;
- d. Education should awaken the powers and talents of the individual, particularly inherent "directive power" and leadership;
- e. Education should maintain and facilitate the mobility of the people which is implied in a democratic, free-enterprise society;
- f. Education should result in the preservation and the creation of property and wealth;
- g. Education should provide the technical training necessary to make the individual the master of his mechanical environment;
- h. Education should nurture individuals responsive to social evolution--not radical, but progressive enough to maintain a dynamic economy;

2. The control of laymen should be confined to policy-making; the technical management of internal school affairs should be delegated to a professional administrator;

3. The superintendent of schools should be an educational expert, "the shaper of educational thought" for his community, with genuine political skill;

4. The maintenance of salutary public relations should be one of the primary objectives of the superintendent of schools;

5. The employment of women as instructors should be accepted as a matter of policy and good management;

6. Boys and girls should attend the same schools and the same classes from kindergarten through college; there is no cause to justify the segregation of the sexes at any level in the public schools;

7. The colored child should be given the same educational advantages as the white child but not necessarily in the same school buildings or classes;

8. There should be no subvention of public funds for the maintenance of private or sectarian schools;

9. Compulsory attendance should stem from popular demand; it should not be foisted upon the public as a paternal act of government;

10. As one of the several social agencies the schools should co-operate with other agencies to promote the welfare of the pupils and the public;

11. The protection of the health of the pupil should be vested in the board of education with full authority to carry out this responsibility.

CHAPTER III

THE STRUCTURAL ORGANIZATION OF THE AMERICAN SCHOOL SYSTEM

The organizational scheme of the school system of the United States has gone through several stages. In 1800 the pattern, from lowest to highest, was (1) the dame school, (2) the reading and writing school, (3) the Latin-Grammar school, (4) the academy, and (5) the college. There was little co-ordination of these schools; each operated independent of the others. By 1830 the dame school was largely superseded by the primary school which was articulated with an intermediate or English-grammar school teaching reading, spelling, writing, arithmetic, and grammar. Concurrently, the public common school was gaining acceptance and support in the young democracy. The common school was ungraded and it accepted pupils from the age of four through twenty. Apart from these the academy and Latin-Grammar school still held their own as predominantly classical schools below the college level.

By 1860, when Dr. William T. Harris entered the scene as a directive influence, the public elementary school was the mode. There was some articulation at this time between the elementary school and the public high school which was beginning to challenge and replace the academy. The graded school was accepted in theory but still had to gain a wide adoption in practice. The era of district ascendancy had passed its zenith but the larger school corporation was as yet undefined. Democratic idealism was sweeping all children into the common school; the educational ladder was taking form. But public support of secondary and higher education brought pressure from the tradesman and the artisan for a more practical terminal education. Thus arose the trade school, the evening school, and the manual training school movement. The gap between public high school and the college needed to be bridged solidly and permanently. The advent of the graded school for all children raised the need for professionally trained teachers in large numbers and brought the normal school into prominence. Universal literacy created a demand for public libraries. The growth

of urban communities with inadequate provision for child welfare accentuated the need for the kindergarten. This, then, was the scene with its conflicting elements in which Dr. Harris was to become a commanding figure.

In an era of confusion, when the incoherent pattern of American education was apparent to all, there was an occasional cry for a national system of education as a panacea for all ills. The inadequacy of the local district as the school unit caused some protagonists to want to fly to the opposite extreme. While Dr. Harris frequently expressed his opinion that education is of vital interest to our form of government at no time did he advocate a centralized, national system. Neither did he advocate a laissez-faire policy on the part of the federal government: "For the general government may stimulate local action by subsidizing it, or it may pass laws compelling a minimum provision for schools."¹

The relation of the state to education was a chief topic of discussion in the sessions of the National Educational Association of 1871. Dr. Harris summarized the discussion as follows:

That there should be free education at public cost, without distinction of caste and without limitation in degree, was demonstrated beyond doubt or cavil. The relation of property to education and the relation of government to both, was elucidated to show that the institution of society and the state are limited as to quality by the quality of popular recognition on the part of the community at large: this popular recognition is measured by the school education in the community. This exhibition of the solidarity of interests of capital and education settles forever, on an unexpugnable basis, the right and duty of providing free school education by taxation.²

The foundation then upon which Dr. Harris based his concept of an educational system for America was (1) local control and local support with incentive subventions from larger governmental units, and (2) free schools for every child to climb as far up the educational ladder as his individual initiative would take him.

¹Wm. T. Harris, "Our Educational System," The Chautauquan, XV (April, 1892), 17.

²Harris, "The National Education Association," Journal of Education, IV (September, 1871), 8.

The Local Unit of Control

Consolidation.--The district system grew out of the attempt to plant a school within the reach of every child. While the ideal thus expressed was a laudable one, the result was the establishment of a large number of small and weak schools. It was recognized some time after their establishment that such a system brought about a wasteful dilution of school resources as well as institutions which were pedagogically inefficient.¹ But the principle of local control had taken root and it thus became the problem of years to enlarge the base of school support by erasing or extending district boundaries and transporting children to union schools. The adoption of a township system by some states was commended by Dr. Harris as a step in the right direction.² During the 1890's Dr. Harris, as United States Commissioner of Education and as Chairman of the Sub-committee on Instruction and Discipline of the Committee of Twelve on Rural Schools, did much to encourage the development of union or centralized schools and the transportation of children. His argument consistently was based on economy and on efficiency of instruction.

Dr. Harris did not commit himself as favoring a township base or a county base or otherwise advocate any political subdivision as a unit for school purposes. Neither did he recommend any maximum size other than that the district should include enough children so that graded, efficient schools could be operated. On the other hand he did not favor a state controlled or a Federally dominated educational system. "But on the whole, it is believed that the cultivation of local directive power compensates for the gain which might be secured through centralization."³ The wisdom of local school committees elected by the people as opposed to that of professional educators was pointed out frequently by Dr. Harris. The unconscious evolution by natural selection in the minds of school committees was more to be trusted

¹Harris, "The Transportation of Children," Report of the Commissioner of Education for the Year 1894-95, I, xxviii. Washington: Government Printing Office, 1896.

²Ibid.

³Harris, "Our Educational System," op. cit., p. 20.

than the theories of the highest educated minds.¹

Taxation.--Because the community must see to its own preservation it has the fundamental right to tax all property for the support of the schools.²

The board of education.--For the government of city schools Dr. Harris advocated a board whose members were elected by wards. It was this type of board under which he worked in St. Louis and twenty years later (1889) he still favored the ward-elected board. The maximum membership of such a board he placed at thirty. Members elected at large or appointed, he felt were too far removed from the people. "In our system of government, we must never cut loose from the people."³ In 1895, however, Dr. Harris commented favorably on a suggestion by Judge Draper that school boards should consist of "five or ten members appointed by the mayor." The plan was proposed to eliminate politics from the control of a city school system and, due to other provisions in the plan, was based on the idea of the importance of personal responsibility at all points in the administration. Dr. Harris expressed himself as favoring a trial of such an organization.⁴

The Vertical Pattern of American Education

The point of departure for any discussion of the American educational ladder is invariably the elementary school. "The chief interest of our public school system centers in the district schools. The other parts of the system may be said to exist in order to render these more effective."⁵ By 1890, when the school population amounted to one-fifth the national population, 94 per

¹Harris, "The Curriculum for Secondary Schools," Report of the Commissioner of Education for the Year 1892-93, II, 1462. Washington: Government Printing Office, 1895.

²Harris, "Our Public School System," The Chautauquan, VIII (February, 1888), 280.

³Harris, "City School Systems," National Educational Association Journal of Proceedings and Addresses, p. 437. Topeka, Kansas: Kansas Publishing House, 1889.

⁴Harris, "Elementary Education," The North American Review, CLX (May, 1895), 543.

⁵Harris, "The District School System," Journal of Education, II (March, 1870), 121.

cent of the student population was receiving elementary instruction. Only six students in a hundred were enrolled in secondary schools and colleges; of these six, five were in the secondary school and one was in college. After quoting these statistics Dr. Harris pointed out the weakness of our educational system:

We ought to have far more pupils in the higher grades. Twenty per cent of the entire population belong to the ages of 6 to 13, inclusive, and these should be in the elementary schools. Eight per cent of the population belong to the ages 14 to 17, inclusive, and are of ripe age for secondary studies; eight per cent belong to the four years, including the ages 18 to 21, for higher education.¹

It is clear that Dr. Harris' ideal for the education of American youth included making secondary school and college available for everyone. In 1898 he quoted with satisfaction statistics showing that the quota of the total population receiving higher education had tripled in twenty-five years.²

Dr. Harris' influence on the vertical pattern of American education was exerted on the lower rounds of the ladder in his espousal of the public kindergarten. He contributed to the extension of the ladder by sponsoring the 8-4 pattern and by working for better articulation of the secondary schools and the colleges. Ancillary to the vertical pattern, Dr. Harris helped to define the function and organization of normal schools and advocated a schism between the public school and trade schools as such.

Extensions from the Common School

A prominent feature of the last quarter of the century in educational history was the tendency of the school to extend beyond its traditional boundaries and enter the province of nurture, the kindergarten and nursery school, or to enter the province of the vocation in life to teach the arts and trades.³ This latter tendency, said Dr. Harris, is to be deplored. "The province of

¹Harris, "Our Educational System," op. cit., p. 18.

²Harris, "The Use of Higher Education," Educational Review, XVI (September, 1898), 147.

³Harris, "The Basis of Education as a Science," The Western, n.s., III, No. 5 (May, 1877), 277.

the common school must be defined to be that in which insight and discipline is given in what is general or common to all culture or vocations."¹ The kindergarten Dr. Harris could justify as a part of the common school according to his own definition, but trade and vocational schools he could not reconcile with public education. "To instruct a youth in a particular trade is to choose for him a special avocation, and in a degree to exclude him from all others. This is to a certain extent revolting to our national idea."² Notwithstanding his theoretical stand on such matters, during his administration the following year the St. Louis Board of Education took over the O'Fallon Polytechnic Institute, a secondary level institution, agreed to provide certain elementary instruction in technological subjects and to maintain a library in connection with these courses. Also, the board of education discontinued the annual tuition fee of ten dollars per year and made such instruction free to all.³

The intermediate school.--The general adoption of the graded plan in the St. Louis schools resulted in a problem which was solved by the temporary expedient of "intermediate schools," between the elementary school and the high school. [Such schools are not to be confused with the later development known as the junior high school.] The "intermediate schools" were designed for those pupils who did their best but failed to keep up with their grammar school grades so that when the time came for promotion to high school they were not ready to meet the entrance requirements. The new policy adopted was to promote the entire class (after appropriate examinations) with one group eligible for entrance to the high school and the other to go to the special, intermediate school "where skilful teachers supervise and correct the habits of study, taking a slow course in the higher branches."⁴ This arrangement, designed specifically for the

¹Ibid.

²Fourteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1868, p. 94. St. Louis: George Knapp and Company, 1869.

³Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1869, pp. 73 f. St. Louis: Missouri Democrat and Job Printing House, 1870.

⁴Ibid., pp. 103 f.

slower learner, preserved the self-respect of the student, postponed the issue of enlarging the capacity of the high school (a pressing problem at that time), and did not require a lowering of the standards of admission to the high school.¹ The significant element evolving from this incident is the tacit admission that the retention of all youth in school beyond the elementary level requires manifest changes in the organizational set-up, in teaching procedures for some students, and possibly in the secondary curriculum itself, a possibility that Dr. Harris was loath to admit.

During the ensuing year the needs of the situation were met by one intermediate school but in June of 1871, when there were approximately four hundred applicants for high school of whom only three hundred could meet the entrance standard, it was decided by the board to open a second intermediate school.² At the same time the success of the original intermediate school is indicated by the following joint report of the board committees on teachers and on the high school:

Your committee would report further that they have promoted to the second class of the High School thirty-two members of the present Intermediate School without condition, and sixteen more conditionally. They report nearly the same number as not having quite completed the studies of the junior [freshman] year, and it has been recommended that these be retained in the Intermediate, forming a division by themselves, next year.³

It is evident from the foregoing report that about half of the students enrolled in the intermediate school definitely benefitted from the experience but further modification of the schedule was required for the remainder.

By the end of the second year the pressure of growth was so great that four branch high schools (for the first year of secondary instruction) were established in strategic locations in elementary buildings.⁴ The intermediate schools were discontinued.

¹Ibid.

²Official Proceedings, Board of Public Schools, St. Louis, I (June 13, 1871), 64 f.

³Ibid.

⁴Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, p. 67. St. Louis: Democrat Lithographing and Printing Co., 1873.

Dr. Harris concluded they were fine for the bright pupils but a waste of time and effort for those less diligent.¹

The kindergarten.--The introduction of the public kindergarten into American education has been called the greatest step in the educational history of the country, with the exception of the founding of normal schools.² To Dr. Harris the credit is given for successfully demonstrating that kindergarten could be carried on under public school conditions. "But for this experiment the general introduction of the kindergarten into the schools of the country . . . might have been postponed for many years."³

The realization of the need for kindergarten in city schools grew out of Dr. Harris' study of "children growing up in poverty and crime" and his cognizance of the fact that

. . . . the average duration of the school life of a child in manufacturing districts is only three entire years. Commencing at the age of seven, he completes his school education at ten. If he could be properly cared for in school at five years of age, his school life would last five years. This period would suffice to make a durable impression on his life.⁴

Inasmuch as the great problem with modern education is to reach and civilize the population of the slums, the Kindergarten promises to become a very important link in the school systems of cities. The earlier the child is brought under good influences the surer is his preservation from crime and pauperism.

There are two classes of children saved by the Kindergarten which are in danger without it. [In addition to the pauper class there are] the children of the new wealthy people--persons of large directive power, but wholly taken up with adjusting themselves to the new duties which come upon them as they rise from one rank to another in society. Both parents are so absorbed in their responsibilities that they neglect their children and turn them over to governesses. The children inherit the directive power of their parents, and are precocious. They learn how to control the nurse and the governess, and are 'spoiled children.' If their entrance on school is delayed till the seventh or eighth year, they are found incorrigible in the primary school, and are sent home. If they attend the kindergarten two years younger, they are

¹Ibid., pp. 47 ff.

²Ernest Carroll Moore, Fifty Years of American Education, p. 58. Boston: Ginn and Co., 1917.

³Nina C. Vandewalker, The Kindergarten in American Education, p. 20. New York: The Macmillan Co., 1917.

⁴Harris, "The Kindergarten," American Journal of Education, X (July, 1877), 8.

most generally saved. Their power of doing has full play in the kindergarten gifts and occupations, and when they come to the primary school they have tamed their wild humors and are eager for learning.¹

The chief obstacle in the way of adding kindergartens to the public schools was the expense. The private kindergartens in Boston and elsewhere had operated at a high per pupil cost--so high that they would be prohibitive translated to 2,000 or more children a year. It was clear that major adaptations were required. It was due to the astute adaptations by the superintendent, the fortuitous availability of a trained advocate, Miss Susan Blow, and a receptive board of education that the kindergarten experiment came into fruition in St. Louis.

In 1871 the board authorized a committee to investigate and report whether the establishment of play schools for children under the usual age of admission would be beneficial to the interests of public education.² The committee reported favorably and recommended that the board appropriate one thousand dollars toward the institution of a play school provided that interested citizens would furnish a similar amount.³ It was more than a year later that the experiment was finally set up with Miss Susie F. Blow in charge and Miss Mary A. Timberlake as a paid assistant. Miss Timberlake was a regular primary teacher in the system transferred for this experiment and Miss Blow gave her services gratuitously.⁴ The first year's experience proved so successful that the superintendent recommended opening at least two more centers the following September. To meet the problem of costs Dr. Harris recommended utilizing large rooms accommodating fifty pupils at a time. The fifty pupils would comprise three classes and require three teachers. One teacher would be thoroughly trained and well-paid; the other two would be volunteer learners. Two sets of children were to be taught, one set in the forenoon

¹Harris, "Education in the United States," United States of America, ed. by N. S. Shaler, pp. 358 f. New York: D. Appleton and Co., 1897.

²Official Proceedings, Board of Public Schools, St. Louis, I (November 14, 1871), 109.

³Ibid. (March 12, 1872), p. 144.

⁴Ibid. (August 26, 1873), p. 277.

and the other in the afternoon.¹ This arrangement made it possible to teach 100 pupils in each center at a tuition of eight to twelve dollars per child--a rate which corresponded favorably with that of primary instruction. This recommendation set the pattern which precluded a successful termination of the experiment and made possible the continuation of the kindergarten as a part of the public school system.

By 1877 there were forty-one kindergarten centers operating successfully with thirty-nine directors, thirty-nine paid assistants, and one hundred and sixty-five volunteer assistants.² More than three thousand pupils were enrolled. Two kindergarten supervisors were appointed in 1876 to co-ordinate the work of the kindergarten centers and report weekly to the superintendent.³

To further reduce the expense of kindergarten to the district a fee of one dollar per quarter was charged for each pupil, except the indigent ones. This fee paid for all the materials used or consumed by the pupils in the kindergarten activities.⁴

Regarding the experiment at St. Louis, Miss Blow says, it 'was a crucial one, and had it failed it would have been difficult to prevail upon other cities to introduce the kindergarten into their schools. There were many ready arguments against such an innovation: the argument from expense: the argument based upon the tender age of the kindergarten children: the argument that kindergartens would spoil the children and fill the primary grades with untractable pupils: the argument that only rarely endowed and therefore rarely to be found persons could successfully conduct a kindergarten. These arguments would have acquired immeasurable force when confirmed by an abortive experiment. Dr. Harris steered the kindergarten course through stormy waters to a safe harbor.' With the public kindergarten a success in St. Louis, other cities were not slow to take it up.⁵

The public secondary school.--The adoption of a graded system in the elementary school precluded the continuation of the

¹Ibid. (April 14, 1874), p. 324.

²Ibid., II (December 18, 1877), 404 f.

³Twenty-second Annual Report of the Board of Directors of the St. Louis Public Schools, 1876, p. 83. St. Louis: Slawson, Printer, 1877.

⁴Official Proceedings, Board of Public Schools, St. Louis, II (December 18, 1877), 404.

⁵Edwin Grant Dexter, A History of Education in the United States, pp. 166 f. New York: The Macmillan Company, 1904.

practice of students remaining in the common school after reaching the top, or eighth grade. A considerable number, being quite young upon completion of graded school, were desirous of continuing their education. The first high school in St. Louis, and in Missouri, was established in 1853. It was in a flourishing condition when Dr. Harris assumed the superintendency. At that time, 1867, abroad in the land there was considerable misgiving and some outright opposition to the extension of public support to secondary education but Dr. Harris was a strong advocate of public high schools. His earliest argument for the high school was that it strengthened and made the elementary school more effective by furnishing a common standard for all lower schools.¹ Almost immediately upon assuming the superintendency he began what developed into a life-long defense of his ideas concerning the content of the secondary curriculum. Early in the 1870's he began to defend the high school per se, on its own merits, largely because it offered an avenue to develop the "directive power for the community."

When the question is raised, how far is it necessary to carry education in public High Schools, the answer, based on the grounds that have been urged for public education at all, must be: until the pupil has acquired mental discipline and acquaintance with the technical appliances of knowledge, sufficient to enable him to pursue rational investigation into any province for himself by means of the Library or independent observation. The individual, educated to this extent, may enter the spheres of practical life and still carry on his culture studies indefinitely.²

Dr. Harris contended that it was economy as well as justice that St. Louis should provide for the higher education of all its youth who were willing to devote their time and energy to the requisite study. He argued that the need for "educated directive power" was greater in St. Louis and Missouri than anywhere else because of the latent, undeveloped natural resources of the city and state. "The specious argument that society can afford only a common education to its children is known to be as unsound in economy as it is undemocratic in principle."³

¹Harris, "The District School System," op. cit., p. 121.

²Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1871, p. 58. St. Louis: Platte, Ols-hausen and Company, 1872.

³Ibid., p. 55.

The government of a republic must educate all its people, and it must educate them so far that they are able to educate themselves in a continued process of culture, extending through life. This implies the existence of higher institutions of public education.¹

Until 1874 the elementary school in St. Louis extended through seven years only. In November, 1873, at a meeting of superintendents of Western cities held in Chicago, it was agreed to adopt a system of eight grades for the work of the district schools, each grade corresponding to a year's work. The cities of Toledo, Cleveland, Detroit, Cincinnati, Memphis, St. Louis, and Chicago adopted this standard.² From this date Dr. Harris was a firm advocate of the k-8-4 plan. In 1895, in the midst of insistent demands for modification of this rigid pattern, Dr. Harris, as chairman of an important Sub-Committee on the Correlation of Studies in Elementary Education, reported to the National Educational Association: "Your Committee is agreed that the time devoted to the elementary school work should not be reduced from eight years"³

It is natural that there should have been some confusion in the public mind as to the real nature and purpose of the public high school. The high school was an extension of the common school yet it was rapidly displacing the academy, sometimes called "the people's college." In the midst of this uncertainty as to the function of the public secondary school Dr. Harris took a very logical and far-seeing stand, making no extravagant or high-powered claims for the relatively new institution:

Let me say in the beginning, that the High School is not a college or university, and that it does not undertake anything that cannot be accomplished; that it seeks ends attainable in the school room, and does not indulge in an extensive programme at the expense of superficiality; that it is not 'an institution of learning,' 'temple of science,' 'a higher seminary,' or anything of the kind; it professes only to be a first-class school, doing all that can be done in the time and with the material at its command. As a school, it boldly challenges comparison with any similar enterprise. Its pupils come to it at an average age of fourteen years. They

¹ Ibid.

² Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1873, p. 26. St. Louis: Democrat Lithographing and Printing Co., 1874.

³ National Education Association, Journal of Proceedings and Addresses, 1895, p. 329. St. Paul: Pioneer Press Co., 1895.

have completed the course in Arithmetic, Geography, History of the United States, English Grammar and Spelling; they know no more than can be expected from youth of this age. Those who have an intelligent interest in education will not expect these same pupils to be turned out at the end of four years as linguists, chemists, practical mechanics, architects, historians and authors. What may be reasonably demanded is, that they shall have learned how to study, shall have become familiar with the outlines and fundamental principles of the different branches, and shall be ready to enter our best colleges and scientific schools, or else to begin life with such general knowledge, and with abilities and habits of thought so trained, that they shall be impelled toward all that is high and useful, and be protected from the baseness of ignorance. Whether the impulse thus given shall exhaust itself, or whether it shall lead to high success, must depend upon the nature of the individual, an accident for which no human being and no human institution can be responsible; men cannot build marble palaces of clay.¹

The normal school.--In conformity with the general practice of the period the St. Louis Normal School was operated in 1867 by the board of school directors as a training school for elementary teachers. Fundamentally it was a secondary school; students were admitted upon examination when they completed the elementary school course of study--at this time, seven grades. The normal school competed with the high school for elementary school graduates. It was not possible to transfer from the normal school to the high school but in 1871, by board rule, it was made possible for students to transfer, without examination, from the high school to the normal school; high school graduates to the senior class of the normal school; those having completed the third year of high school were admitted to the middle year of the normal school.² A further provision was made shortly after that students must be sixteen years of age to be admitted to the normal school at all and of a corresponding advance in age to be admitted to the higher classes.³ In 1872 the age of admission was increased from sixteen to seventeen years and algebra was added to the examination list. These changes were made because it was discovered that many of the applicants for admission to the normal school lacked sufficient maturity of mind to profit by the normal

¹Seventeenth Annual Report, op. cit., pp. 62 f.

²Official Proceedings, Board of Public Schools, St. Louis, I (November 28, 1871), 112 f.

³Ibid. (December 12, 1871), p. 116.

school course of study.¹ The net result of these higher requirements was that students planning to enter the normal school were practically required to fill the gap between age fourteen (the normal age of finishing elementary school) and seventeen (the age of admission to the normal school) with high school training.

With these stepped-up requirements the normal school began to take on some of the attributes of higher education and this was probably in Dr. Harris' mind when he said, "Normal school work is, therefore, not equivalent to that of the secondary school. . . . I should always say that the normal school furnishes a more thoroughly trained mind than the secondary school."²

Higher Education

Although Dr. Harris had little direct connection with institutions of higher learning his standing as a philosopher and idealist combined with his eminence as a schoolman gave his opinions on the subject of higher education an aura of authority. His observation of the social order and the needs of a democratic society led him to the position that higher education must be made available to all who desire it.

It is almost equally important that our home problems, social and political, shall be studied by our university specialist. Perpetual re-adjustment is before us. There is the new aristocracy of wealth struggling against the aristocracy of birth. To both is opposed the aristocracy of culture, the only one that is permanent. All may come into the aristocracy of culture, but it requires supreme endeavor on the part of the individuals.

With the great inventions of the age we find ourselves all living on a borderland. We are brought into contact with alien nationalities and alien forms of civilization. We are forever placed in antagonism with some environment, material or spiritual, and our endeavor must perforce be to effect a reconciliation to unite the conflicting ideas in a deeper one that conserves what is good in each. There is no other recourse--we must look to higher education to furnish the formulae for the solution of the problems of our national life.³

Dr. Harris observed that where formerly it was believed

¹Eighteenth Annual Report, op. cit., pp. 34 f.

²National Education Association, Journal of Proceedings and Addresses, 1894, p. 565. St. Paul: Pioneer Press Co., 1895.

³Harris, "The Use of Higher Education," op. cit., pp. 160 f.

that higher education should be reserved for lawyers, physicians, and divinity students it was becoming increasingly apparent that "the most practical occupations, those for the procurement of food, clothing, and shelter, as well as those for the direction of social and political life, need also the studies that lead to the A.B. degree as well as the specializing post-graduate studies that lead to original combinations in industry and politics."¹

An interesting argument for college education was advanced by Dr. Harris in that it would forestall the emergence of so many self-made men--a group which is given to "sophomorphism, pedantry or learned folly Such self-made men are often men who do not possess ideas, but ideas possess them."²

Articulation of secondary and higher education.--Bridging the gap between the high school and the college was a very real problem during the period of the popularization of the high school and the decline of the academy. The chief controversy arose over the classical demands of the college which decried the more practical curriculum of the high school espoused by lay school directors. Dr. Harris early took the stand for the classical curriculum, holding that such a foundation was necessary for the development of a rational view of the world.³ While he defended the classical course of study for high schools in general it is noteworthy that he approved a dual course of study in the St. Louis High School, a college preparatory or classical course, and an English or general course.⁴

The lack of articulation between the high school and college Dr. Harris called "a national disaster in our education."⁵ The problem, as will be noted in Chapter V, is largely one of agreement upon curriculum, with the colleges being reluctant to admit the modern subjects (natural science, history, and modern literature) as worthy of recognition. Dr. Harris found himself

¹Ibid., p. 150.

²Harris, "Should Colleges Lower Their Standards of Admission," Education, XVII (June, 1897), 582.

³Ibid., p. 583.

⁴Seventeenth Annual Report, op. cit., p. 58.

⁵Harris, "Education in the United States," op. cit., p. 343.

in the peculiar position of advocating both the modern subjects and the classics for the high school; he defended the college in demanding a classical preparation and at the same time he argued that high schools should teach the modern subjects. He was encouraged when President Eliot of Harvard introduced the elective system and recognized English literature, modern languages, natural science, and history as acceptable college preparatory subjects. Almost at the same time, however, Harvard and the other colleges demanded more Latin and Greek. Dr. Harris commented, "Had the Latin and Greek requirements remained the same, the new standard of admission would have fitted the course of study of the high school and the problem would have been solved. As it is now, the situation of the high school as a feeder for the college is worse than before 1870."¹

The general problem of articulation was succinctly stated by Dr. Harris in his first Annual Report as the United States Commissioner of Education under the title "The Conflict Between the College and the Common School." (In this case he used the word "common" in its generic sense to convey the idea of "the people's schools," including both elementary and secondary levels, supported, operated, and attended by the public.)

In the schools of the United States there prevail two different ideals of the course of study; the one originating with the directors of higher education and the other a growth from the common elementary school. These ideals clash in quite important particulars. The common school course of study, as it appears in the elementary school and in the public high school , does not shape itself so as to fit its pupils for entrance to the colleges. At least, if we admit that as an actual fact that many high school pupils do enter college, we must also admit that there is a constant tendency in the public high school to diverge in its course of study and follow a path that does not lead to the college.

It might be claimed that the graduate of the high school had a broader education; his education, under good teachers, might even be thorough, but certainly in his preparation in Latin and Greek the amount was not sufficient to give the high school pupil a fair chance by the side of the graduate of the special preparatory school.

The directors of the common schools have therefore been compelled to establish a double course, a classical and an English course, in the public high school; a procedure so foreign to the spirit of the entire common-school course of

¹Ibid.

study that it has only partially succeeded.

This brief statement leads us to the source of the present problems in our education. Twenty-five years ago the requirements for admission to respectable colleges were much lower than at present. . . . The bold action of some of the ablest college presidents set into more rapid motion the demand for more work in the preparatory schools, and the consequence has been the general elevation of the standard of admission to college by about one and one-half to two years.

The results of this change have become slowly apparent. There has followed a wider separation of the higher education in the United States from its public-school education. The preparatory school has been forced into the place that the college held, and the result is not felt to be salutary. This difficulty has been increased by the rapid multiplication of public high schools, which now number some 4,000. The numerous smaller colleges having given up a year or more of their work to the preparatory schools feel very keenly the loss of students. Inasmuch as the larger colleges have developed into universities, there is evident the beginning of a crusade against the small college that will force it to step down into the work of secondary education and renounce the work of higher instruction. . . . It is possible that there may be a change that will return the college to its old place in the educational system, and this will save all the small colleges for the useful work which they have so long and so faithfully accomplished. This same move would like wise restore the college to a harmonious relation to the public high school. Indeed it would bring about a better adjustment than has ever been before. For the elevation of the standard for admission to college has been accompanied to some extent by requirements of preparation in moderns. . . . If this tendency is preserved and accentuated in the change of the requirements for admission, there may come about a complete adjustment of the higher education to the common-school education and an inestimable advantage accrue to the people; for it is certainly a calamity to have the youth of the land diverted from the institutions of higher education.¹

Specialized, post-college training.--Beginning with his earliest statements Dr. Harris was consistent in advocating the efficacy of school subjects embodying the accumulated wisdom of the race, with emphasis on the classical curriculum, at all levels of the public school system. The logical culmination of this line of thought took place after some twenty years of evolution and to a certain extent it was an outgrowth of the flux of higher education during the period around the end of the century. The realists and pragmatists had heckled and plagued Dr. Harris for many years as to the place for practical arts and specialization in education. His reply was that such instruction, being of an

¹Report of the Commissioner of Education for the Year 1888-89, pp. liv ff. Washington: Government Printing Office, 1891.

individual nature, should not be a part of the common school curriculum but should come after the individual had completed his cultural education. His line of reasoning supported cultural education from kindergarten through college but such a thing as postgraduate training was largely foreign to the thought of educators in America prior to the last decade of the century. It was just at the turn of the century that Dr. Harris took up the banner of post-college specialization. This was to be the top round of his educational ladder for the young American.

One of Dr. Harris' first references to the need for specialized schooling was made in 1879. In his Journal of Speculative Philosophy he discussed the effects of industrialization on contemporary civilization, more particularly the necessity of the division of labor, and how this development made imperative "two kinds of educational institutions--those devoted to general education (common schools, colleges, etc.) and special schools (for agriculture, medicine, mechanic arts, etc.)."¹

As the better colleges expanded the scope of their curriculum to include a wider and wider range of subjects, more obvious departmentalization took place. The college became a university with many departments offering detailed and specialized knowledge far beyond the capacity of a general student to master during his regular four-year course.

The old college did not know how to manage the years of post-graduate study. . . . A reform of the greatest importance was inaugurated by organizing post-graduates into classes for original investigation in the form of laboratory work and of seminaria wherein critical research was taught and learned. At once there sprang up a new and superior order of professors, which has been superseding step by step the type of college professor that formerly prevailed.

There should be a fourth stage of education, that of the university, quite beyond the education of the college, and its characteristics should be those of specialization and original investigation.²

The second part to higher education such as is coming to exist in this country which takes the student with a B.A. degree and makes of him a specialist is so important that a

¹Harris, "The Science of Education," The Journal of Speculative Philosophy, XIII (April, 1879), 209.

²Report of the Commissioner of Education, 1888-89, op. cit., p. 1v.

full provision should be made for this course in every one of the larger colleges and universities. The endowments of wealthy men and the appropriations of state governments should go in this direction until there are fellowships enough to support in a comfortable manner all post-graduate students who have ambition to complete their higher education.¹

A national university. --In the year 1874 Dr. Harris delivered an address to the National Educational Association, in convention at Detroit, on the subject of a national university.² In this address Dr. Harris was quite critical of the colleges as they failed to meet the needs of the country at that time. He pointed out the inadequate coverage of such subjects as "the problems of sociology and statesmanship, the philosophy of science, of literature, of history, of jurisprudence."

Further than this, the value to be gained from a national university would be (1) the emancipation of the public schools from the restrictive influence of the ultra-conservative colleges, (2) the safeguarding of the curriculum of the common school against too much emphasis on the natural sciences at the expense of the disciplinary subjects, (3) the correction and prevention of wrong tendencies on the part of common schools, colleges, and private schools, (4) a source of supply of teachers and professors of the highest order, and (5), most important of all, the setting of a standard for all collegiate institutions in the land.³

Co-ordinate and Auxiliary Agencies

It was early recognized by Dr. Harris that other agencies are necessary and desirable to supplement the education provided in the common school. In an era when public education was still proving itself, when the average duration of school training was upwards of three years, when the exigencies of a livelihood required children in large families to add their meager earnings to the family income at an early age, when the impact of mechanization outmoded trades and vocations overnight, the problems of continuation schools and supplementary centers of learning ac-

¹Harris, "Should Colleges Lower Their Standards of Admission," op. cit., p. 585.

²Addresses and Journal of Proceedings of the National Educational Association, 1874, pp. 83 ff.

³Ibid.

quired an urgency unprecedented in history.

Libraries.--During the interim of Dr. Harris' connection with the St. Louis public schools he had the unique experience of assisting in the organization of a library when a group of school people and library-minded citizens organized as a civic body to initiate and operate such an enterprise. The library was housed in board of education property, for a long time in the high school building. The original plan of control called for school people to be included on the board of directors. One of the chief reasons given for its organization and support was that of supplying reference material for teachers and for students of the high school. It was supported by popular subscription--largely by users of the library. After several years of successful operation it grew in both size and patronage to the point where it was felt expedient to turn it over to be controlled by the board of education and administered through the office of the superintendent of schools. Still later, after the adoption of a new state constitution and the passage of enabling legislation, the public school library became the St. Louis Public Library with an independent board and a separate tax levy.

It was the public school administrators and teachers who conceived the idea of a library for St. Louis and brought it into being. The board of education nursed it through its infancy and put it on its feet as a tax-supported public institution, open and free to all St. Louis citizens. The school people, Dr. Harris in particular, had in mind not only the benefits which school-students could derive from a library but also the creation of a source of knowledge, information, and inspiration for these same people when they had completed their formal schooling--a place for continued "self-education."

It was Dr. Harris' ideal to make the library the right hand of the school:

The use of the library in a system of schools is so obvious that it wins ready assent. But it is so great an instrumentality that we must confess, that all thus far achieved is as nothing to which should be done, and without delay. A close connection should be established between the daily school work and the use of the Library. It should be the task of the teacher as much to direct properly the miscellaneous reading of the pupil as his studies in school.¹

¹Seventeenth Annual Report, op. cit., p. 142.

Some of the co-ordinating relationships between the schools and the library were quite novel. There were several scientific, technical, and professional societies in St. Louis which had valuable libraries of their own. When these societies approached the board of education concerning a place to hold their meetings, the board granted them the privilege of using the session room of the board

. . . . on conditions providing the deposit of their libraries in the public school collection, and, in most instances, the payment of annual memberships to increase the collections in special departments. In this way about \$500 per year is expended for the increase of medical works in the Library; considerable sums expended for works on architecture, for works on engineering and for polytechnic works generally.¹

In the same report is the statement "the influence of the Public School Library is felt to an extraordinary degree. . . . There is no branch of our school system which has a more direct influence on the prosperity of the city."²

Again, the patronage of the evening schools (for students regularly employed) was increased materially when free, three-months memberships in the library were given as attendance prizes. At the close of the session of 1872 there were 684 library certificates (annual memberships in this case) issued to evening school students who attended sixty evenings out of the entire sixty-four.³ The attendance in the evening schools more than doubled over a period of five years (2,464 in 1870 to 5,717 in 1875) and Dr. Harris credited this to

. . . . the influence of the prizes of free membership offered in the Public School Library. It may be seen that the library is exerting a two fold beneficial effect on the laboring population of the city. First, it induces youths and adults, who labor during the day, to exert much self-denial in order to attend these evening schools regularly and in season; secondly, it furnishes books for the year to these youth and adults, and thus brings about mental improvement, instead of time spent in dissipation.⁴

¹Eighteenth Annual Report, op. cit., p. 285.

²Ibid.

³Official Proceedings, Board of Public Schools, St. Louis, I (March 12, 1872), 142.

⁴Ibid., II (March 9, 1875), 10.

In 1894, as Commissioner of Education and speaking to a general assembly of the National Educational Association, Dr. Harris called attention to the great increase of public libraries in the United States as significant evidence of progress toward the goal of the common school--to inspire its graduates to continue their education by reading books and newspapers. He reported with gratification the existence of more than 4,000 public libraries each containing more than 1,000 volumes. "The schools teach how to read; the libraries furnish what to read. . . . The library and the newspaper are our chief instrumentalities for the continuation of the school and the university."¹

Apprentice and trade schools.--In Dr. Harris' first Annual Report as Superintendent of Schools he went to some pains to present his viewpoint on vocational training. To the question, "Should we establish polytechnic or industrial schools at public expense, and attempt therein to teach the many arts or 'trades'?" he replied that it was alien to our national ideal to instruct a youth in a particular trade for by so doing the school tended to exclude him from other fields of endeavor. Rather, the public school should give general culture and postpone the selection of a vocation as long as possible.

All the time that the pupil can command in school should be devoted to the mastering of this general course, rather than to special arts. . . . The time devoted to algebra would be better spent than if devoted to studying the mechanism of a steam-engine. A knowledge of Greek would be better than a knowledge of book-keeping, important though the latter may be.

The position that I desire to state is, that public education should confine itself to the indispensable accomplishments like reading, writing and arithmetic, and, after these, to unfolding general principles applicable in all spheres of life, and that 'industrial education' should not pursue any other course.²

The fact that the following year the board of education absorbed the O'Fallon Polytechnic Institute and continued its operation as a vocational school did not appear inconsistent to Dr. Harris because it was operated in conjunction with the evening

¹Harris, "The Influence of the Higher Education of a Country upon Its Elementary Schools," National Educational Association, Journal of Proceedings and Addresses, 1894, p. 129. St. Paul: Pioneer Press Co., 1895.

²Fourteenth Annual Report, op. cit., p. 94.

schools, served a working clientele, and "it served the purpose of a High School, to which the more enterprising and industrious pupils might be promoted from the other evening schools."¹ To the casual observer, however, the inconsistency is patent for here was vocational education of a highly technical nature being supported by public funds and operated as a dual program and almost in direct competition with the daytime high schools. The justification must have been one of expediency. This inference is borne out by Dr. Harris' later report in which he dwells upon the fact that the laborer is a member of civil society and of the body politic and, as such, is entitled to all the instruction he needs.²

In 1883, speaking before the Department of Superintendence of the National Educational Association, Dr. Harris agreed that industrial schools--manual training schools, school shops, and the like--were in demand and that they had a legitimate function to perform but he continued to question, albeit not so ardently, whether such subjects should be incorporated with common school education or encroach in any way on the "time-honored disciplines of the common school, . . . or indeed take the place of anything that can be called general instruction."³ In this address he conceded that special industrial schools justifiably could be established at public expense and that they would do much good but he held to his original premise that "man will not submit to be educated simply as a director of machines and instrumentalities of industry. He soon aspires to direct himself and be self-governed."⁴ He further pointed out the folly of teaching men trades which faced the very real possibility of becoming outmoded and displaced in an era of invention and mechanization. His study of industry indicated a continual shifting of vocations with no

¹Fifteenth Annual Report, op. cit., p. 73.

²Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1870, pp. 112 f. St. Louis: Plate, Olshausen and Co., 1871.

³U. S. Bureau of Education, Circular of Information No. 3, 1883, "Proceedings of the Department of Superintendence of the National Educational Association," p. 32. Washington: Government Printing Office, 1883.

⁴Ibid.

vocation having a long lease on life. His conclusion: the most practical education is general education which is useful in any vocation.

By 1889 Dr. Harris was ready to concede that

Tool work with its theory and with natural science is permanently educative, . . . and especially is this the case if it is studied with the history of ornamentation and with careful cultivation of aesthetic taste. . . .

There remains, notwithstanding, a permanently valid place for the manual-training school side by side with apprentice schools for all youths who are old enough to enter a trade, and who are unwilling to carry on any further their purely cultural studies. Cultivate the humanities first, and afterwards the industrial faculties. . . . Above all we must never yield to the economic spirit that proposes to curtail the humanizing studies in our schools for the sake of adding special training for industries.¹

Evening schools.--As noted earlier in this chapter the evening schools in St. Louis were largely attended by employed people. Most of the common school subjects were taught. The younger people took courses and subjects to complement their previous short period of schooling; the adults, especially those of German or Slavonic origin, to a great extent attended for the sole purpose of learning English. Special classés were organized for them which were limited to practice in reading and writing.²

When it is remembered that the productive industry of the city withdraws so large a portion of our youth from the day schools before they have obtained even the rudiments of an education, it is apparent that any means held out to this class, enabling them to enjoy the privileges of instruction must prove a blessing; and not to them as individuals alone but to the entire community. . . .³

Evening school classes were taught by the regular day school teachers. The success of this branch of the public school program is attested by the enrollment which reached 4,000 during the school year of 1871-72, and which doubled itself in two years. Enrollment was limited to adults and youths over the age

¹Harris, "The Intellectual Value of Tool-work," National Educational Association, Journal of Proceedings and Addresses, 1889, pp. 97 f. Topeka: Kansas Publishing House, 1889.

²Official Proceedings, Board of Public Schools, St. Louis, I (November 14, 1871), 107 f.

³Ibid.

of twelve.¹

It is inferable that Dr. Harris conceived of the evening school as an interim institution, but a desirable one, until all youth remained in the common school through the twelfth grade. Also, during his life-time there was a constantly growing immigrant population. The evening school provided the most effective medium for their Americanization. He makes no reference to the evening school as an institution outside of the Official Proceedings and the Annual Reports of the Board of School Directors of St. Louis.

Summary and Conclusions

The administrative principles advocated by Dr. Harris for the structural pattern of education in America were:

1. There should be a universal system of free, common-school education in America without centralization;
 - a. The federal and state governments should have the privilege of stimulating educational progress through subsidies, and of legislating minimum standards for schools;
 - b. The control of the schools should remain in the local community;
2. Schools should be operated by boards of laymen representing a large enough population-area to insure the formation of graded and efficiently operated schools;
3. The common school, regardless of its length and duration, should be devoted exclusively to general education;
4. The kindergarten should be justified because it renders the common school more effective;
5. Public secondary education should be extended to all because it renders the elementary school more effective and because it, too, should provide general education;
6. Institutions of higher education should be available to all who can qualify for them and not be restricted to training for the professions;
7. Normal schools should be considered in the realm of higher education and should require the completion of secondary school as an entrance standard;
8. Colleges should recognize the validity of "modern"

¹Eighteenth Annual Report, op. cit., p. 10.

courses in the high-school curriculum as a part of general education entitling students to admission to higher education;

9. Higher education should complement rather than supplement the common school;

10. Specialization should follow the completion of general education preferably at the post-college level;

11. Manual training and practical arts courses do not belong in the general course and should be provided only at the end of the student's cultural education;

12. Co-ordinate and auxiliary agencies should be considered complementary to the local educational system;

- a. Libraries should serve not only the school population but adults who want to continue their "self-education";
- b. Apprentice and trade schools should not infringe on the province of the common school but should serve the community apart from and supplementary to the common school;
- c. Evening schools should be justified as agencies to Americanize the foreign-born and should cater also to those whose common school education had been interrupted.

CHAPTER IV

CONCEPT OF THE CURRICULUM

Shortly after the middle of the nineteenth century several factors combined to force an analysis of the curriculum of the American school. The development of democratic government; the gradual acceptance of the ideal of universal education in free, public schools; the popular discreditation of sectarian and private schools; the rise of mechanization; the growth of manufacturing, commerce, and industry; the increased size and importance of urban centers--all these developments, and others as well, created a demand for appropriate changes in the school curriculum or, otherwise, for assurance that no change was needed. In short, during a period of rapid expansion and growth the American school was called upon to justify its subject-matter content. The era of memoriter exercises and rote recitations was rapidly waning. The "knowledge conception," however, still dominated instruction and it was assumed without question that children were alike in capacities and in needs.

Between 1860 and 1890 the psychological conception evolved. This was the assumption that "mind training" was the end of education; that by selecting subject matter and following a set procedure the faculties of the mind (attention, will, memory, etc.) could be exercised and strengthened. Dr. Harris was strongly opposed to the "faculty psychology" which was current in his day. His constant opposition to mechanical theories of the mind was one of the strongest forces against the acceptance in America of the faculty psychology of Herbart. "He was America's first great educational philosopher."¹

The Province of Public Education

It was necessary to set the boundaries of institutional

¹Ellwood P. Cubberley, Public Education in the United States, p. 472. Boston: Houghton Mifflin Co., 1934.

education before its proper content could be defined and evaluated. Education as conceived by Dr. Harris embraces the whole process by which man becomes a creature of reason and it includes all the institutions of civilization--the family, civil society, the state, and the church. There is one limited domain, however, which is set off specifically "for the purpose of discipline and instruction in the conventionalities of intelligence" and that is the province of the school.¹ The educative aim of the other institutions is covered up; in their cases the educative outcome is of the nature of a by-product where a more specific purpose is the main objective.

Education in general is the main object of social science as it studies humanity in its social setting with the object of learning how to secure the normal development of man as a social being. The segment of education which falls to the school must ever concern itself with social science and comprehend social conditions if it is to function as a dynamic institution.²

The education of the school should be considered preliminary to the education of life; its chief purpose is to put into the student's hands the instruments which he may use in a life-long pursuit of culture.³

Since the period of schooling is limited for any individual, and since many things are learned better out of school than in it, it is necessary to make a very careful selection of the elements of education which are delegated to the school. One criterion should be that the school should teach "only what the pupil is not likely to pick up from intercourse with the family circle, with his fellow-playmates, or with his fellow workmen."⁴ Another criterion should be that the school curriculum should contain "only such matters as have a general theoretical bearing

¹Wm. T. Harris, "Pedagogics as a Province of Education," American Journal of Education, X (June, 1877), 9.

²Harris, "Method of Pedagogical Inquiry," National Educational Association, Journal of Proceedings and Addresses, 1885, p. 492. New York: J. J. Little and Co., 1886.

³Harris, "The Proper Place of the Y.M.C.A. in the Educational Field," Education, XI (January, 1891), 265.

⁴Official Proceedings, Board of Public Schools, St. Louis, I (October 10, 1871), 96.

on the world in which [the pupil] lives, and the institutions and character of the human species of which the pupil is an individual."¹

It is not in the province of common education to anticipate the choice of vocation in life. The curriculum should aim at all culture--towards giving the pupil possession of the wisdom of the race.² There is no virtue in industrial education which makes it equal to or satisfactory as a replacement for general education.

Education must relate first to citizenship, the production of the human being that can live peaceably in our civilization and combine civilly with his fellowmen; secondly, to the intellectual mastery of the scientific view of the world; thirdly, to the mastery of the technical matters that go to making a living.³

Moral instruction.--Since there was a tradition of moral and religious instruction in the early American schools there was an insistent demand from a large minority of the populace for a continuation of such instruction in the ever-growing public common school. Dr. Harris met this challenge with a firm stand in defense of complete secularization of the public school. From the curricular standpoint he said the principle of religious instruction is authority while that of secular instruction is demonstration and verification. These two principles do not belong in the same school but should be separated as widely as possible.⁴

The spirit of authority loves dogmatic assertion and the memorizing of the exact words of the text-book. It represses the investigating spirit and stifles independent thinking. Arithmetic, algebra and geometry cannot be learned by authority. . . .⁵

In defining the province of instruction in the public schools Dr. Harris made it very clear that the school should "not

¹Ibid.

²Harris, "Should Colleges Lower Their Standards of Admission?" Education, XVII (June, 1897), 581.

³Harris, "Industrial Education in the Common Schools," Education, VI (June, 1886), 608.

⁴Harris, "Religious Instruction in the Public Schools," The Independent, LV, No. 2853 (August 6, 1903), 1841.

⁵Ibid.

undermine the rightful instruction of the family, the civil community, the state, or the church. . . ."¹

Because the public school omits religious instruction it is neither pernicious nor immoral but exactly the opposite. Dr. Harris said, "I wish to be explicitly understood as claiming only that public school education is moral and completely so, on its own basis; that it lays the basis for religion, but is not a substitute for religion."²

Dr. Harris was solidly for moral training in the school but the religious aspect was to be barred. The moral training of the school was to be based on social sensitivity rather than religious authority. The moral lessons of the school grow out of "pure will-training" in the well-disciplined school. They seldom grow out of discussion or moralizing.³

The cardinal virtues of the school lie at the basis of every true moral character. They are regularity, punctuality, silence (self-restraint), industry, and truthful accuracy. Every well-disciplined school inculcates these things. But the higher virtues--the 'celestial virtues,' faith, hope, and charity--must be taught by example rather than precept, and by the general demeanor of the teacher--the spirit of his work--rather than by any special training imposed on the pupils.⁴

The moral instruction which Dr. Harris favored was a training of the will rather than of the intellect. Therefore, it was not to be a part of the subject matter taught as such. "Moral training" rather than "moral instruction" was the ideal. It was a matter of habit formation induced by a respect for the rights of others and the observance of the routine regulations of the school.⁵

¹Harris, "The Function of the American Public School," National Educational Association, Journal of Proceedings and Addresses, 1887, p. 268. Salem, Mass.: Observer and Job Print, 1888.

²Harris, "Moral Education," American Journal of Education, VIII (November, 1875), 5.

³Harris, "Our Public School System," The Chautauquan, VIII (February, 1888), 279 f.

⁴Ibid.

⁵Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, p. 16. St. Louis: Democrat Lithographing and Printing Co., 1873.

Bases for Selection of Curriculum Content

Citizenship.--The most effective agency to secure the realization of the democratic ideal is the free public school. This is the primary premise upon which Dr. Harris based his concept of the American school curriculum. To fulfill his civic duties it is necessary for every citizen to be able to read the ballots which he casts, read and understand political and economic discussions in the press, and form intelligent opinions on the issues of the day. Without such ability the right of suffrage is a mockery. Beyond this point, also, there is the further assumption that each citizen must be able to serve his term in the jury-box or in the legislative chamber.

The public school is the instrumentality designed to preserve democratic principles. It protects one class against another by giving an opportunity to the children of all classes free competition in the struggle to become intelligent and virtuous. An aristocracy built on the accident of birth, wealth, or position, cannot resist the counter-influence of a system of free schools wherein all are given the same chances. To eradicate caste distinctions in the community is the most important function of the public school. Homogeneity of population is the great desideratum for free institutions, but it should be homogeneity on the basis of educated intelligence, and not of illiteracy.¹

The democratic state requires each young citizen to develop his talents to his optimum. The school, therefore, must emphasize self-activity. The child is to be self-educated, if at all. Furthermore, the course of study should be adapted to the community in which he lives.²

The public school should provide every student with the necessary knowledge and skills to exercise his rights and obligations as a citizen.

Socialization of the child.--Closely akin to citizenship in a democracy is the need for ability to co-operate with other individuals. Dr. Harris points out that all the methods of the school, all the instruction, and all the organization "should be

¹Report of the Commissioner of Education for the Year 1900-1901, I, xxxiv. Washington: Government Printing Office, 1902.

²Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1869, p. 27. St. Louis: Missouri Democrat and Job Printing House, 1870.

adapted to secure the training of the pupil in the great lesson of combination with his fellowmen, theoretically and practically. Whatever tends to interfere with this object, runs counter to the function of the school."¹

In the genetic sense, education takes man as an animal, a being limited and confined in time and space, and elevates him to a conscious participation in the universal, rational life of humanity. Education seizes upon a potential and makes of it a reality in the life of the individual.²

Education has two chief things to effect; it must make the individual obedient to the requirements of the social institutions under which he lives. These institutions are the family, civil society, the State, and the Church. On the other hand it must develop some degree of independence and self-activity in the individual.³

Unfolding of the individual.--Dr. Harris asks the question: "Is not the highest problem of education how to liberate the genius of the pupil?" He then develops the idea that if genius cannot be created or developed it certainly needs liberation. Such liberation may come through "a course of study which plants first in the feeling and phantasy and then gradually brings out through reflection and reason, the ideas of its contents. . . ."⁴

In 1888, Dr. Harris almost antedated John Dewey and the activity school movement when he stated:

Inasmuch as the child is self-active and grows only through the exercise of his self-activity, education consists entirely in leading the child to do what develops his power of doing. Any help that does not help the pupil to help himself is excessive.⁵

Along the same vein, in 1871, Dr. Harris made his oft-

¹Harris, "The Basis of Education as a Science," The Western, n.s., III (May, 1877), 278.

²Harris, "Ideal Education," The Western, n.s., II (April, 1876), 197.

³Harris, "The History and Philosophy of Education," The Chautauquan, III (October, 1882), 28.

⁴Nineteenth Annual Report of the Board of Directors of St. Louis Schools, 1873, p. 83. St. Louis: Democrat Lithographing and Printing Company, 1874.

⁵Harris, "Excessive Helps in Education," Education, IX (December, 1888), 215.

quoted statement, "Not what the teacher does for the student, but what he is made to do for himself, is of value."¹ He suggests, on another occasion, that the chief criterion of educational progress is "the approach towards a system that secures the greatest individual self-activity of the pupil while it builds up in the pupil's character perfect obedience to law, divine and human, and a sacred regard for the truth."²

Wisdom of the race.--No man is truly educated until he has absorbed the essence of recorded knowledge and culture. It is the duty of the school to make this available to all. It is not enough to store the memory with historical events, pithy and classical expressions, statements of principles or charters of human rights and duties. These are important but they should be taught not as ends in themselves but as thought-provoking media to create self-active and original thinkers in each generation. Each generation should create its own manners and customs and not relive the life of its ancestors. However, it is most important that ethical standards and moral principles be preserved from generation to generation.³ This too, becomes an obligation of the public school.

Tools of thought.--The mastery of the language of social organization as a means of communication is a requisite of public education. Another term which Dr. Harris utilized frequently in a synonymous sense was "conventionalities of intelligence." The "tools of thought" he identified as (1) reading and writing, (2) arithmetic, (3) geography, (4) grammar, and (5) history.⁴ These theoretical tools give man the mastery over nature. The "Conventionalities of Intelligence" he defined as including those arts and requirements which are the means of directive power, and of further self-education.⁵ The content of education is formed

¹Harris, "The Theory of American Education," Journal of Education, III (January, 1871), 5.

²Harris, "The Psychology of Manual Training," Education, IX (May, 1889), 582.

³Harris, "The History and Philosophy of Education," op. cit., p. 80.

⁴Harris, "What Shall We Study?" Journal of Education, II (September, 1869), 2.

⁵Harris, "Ideal Education," op. cit.

largely by these general "conventionalities of education" and they are "the means invented by the race for the apprehension of its ideal."¹

Another expression which Dr. Harris was wont to use in connection with curriculum analysis was "mastery of the printed page" when describing logical objectives of instruction. He emphasized over and over again that the ability to read emancipated the individual from living teachers and opened the doors to life-long self-education if and when the proper inspiration was given at the time the skill was being acquired. He also liked to use the expression "windows of the soul" to describe what he called the five essential provinces of human learning--arithmetic, geography, literature, grammar, and history. He called these subjects the "windows of the soul" since they gave the pupil his first survey of the world of learning.

The Divisions of Curriculum Content

In his scheme of breaking down the body of knowledge and skills to be taught in the public schools Dr. Harris gives little, if any, recognition of the interests and felt needs of children. The learning to be imparted to the child must be discovered by studying the needs of adults.²

We do not begin, therefore, with child-study in our school education. But next after finding the great branches of human learning we consider the child, and how to bring him from his possibility to his reality.³

It was natural that Dr. Harris should analyze the curriculum from a philosophic point of view. The province of knowledge naturally divides, he said, into formal and substantial areas, or (1) the spirit, and (2) nature. The subdivisions under spirit are (a) theoretical, (b) practical, and (c) aesthetic. The subdivisions under nature are (a) inorganic, and (b) organic.

¹Ibid.

²Harris, "The Study of Arrested Development in Children as Produced by Injudicious School Methods," Education, XX (April, 1900), 466.

³Ibid.

- I. Inorganic Matter
Mathematics, or in the general form of nature as existing in time and space, and hence as quantitative;
Physics, motor and molecular, including the science of the contents of nature in their quantitative aspect;
- II. Organic Nature, or Cyclic
Natural history and all natural sciences which have for their object a circular movement, or cyclical process and especially the organic world. Hence astronomy, meteorology, geology, botany and zoology;
- III. Theoretical Man, or Intellect
Philology, or the science of the instrument invented for the reception and preservation of thought;
Philosophy, which investigates the universal and necessary conditions of existence, the pure, ideal forms that appear in logic, psychology, ontology, and other spheres more concrete. The study of language is propaedeutic to this field of study;
- IV. Practical Man, or Will
Civil history, portraying 'man's progress in the consciousness of freedom' by means of political organization;
Social and Political science, investigating the evolution of institutions of society and the logical basis of the same;
- V. Aesthetic Man, or Art
Fine arts, and especially literature as the symbolic portrayal of man to himself, the collisions of his ideal and reality and the reconciliation of the two.¹

Primary education should cover all five of these provinces in the study of (1) arithmetic, (2) geography, (3) grammar, (4) history, and (5) literature (in the form of extracts in the reading text).²

In a later article Dr. Harris broke down the province of knowledge in a little different form although he retained his original divisions:

- I. NATURE (the world of unconscious being)
 - A. Inorganic nature (mathematics, physics, chemistry-inorganic nature is studied by enumeration and measurement);
 - B. Organic nature (natural history concerning plant and animal and also astronomy, meteorology, geology, geography);
- II. SPIRIT (the world of conscious being)
 - A. Theoretical (relating to the intellect) (Studies here include language studies or philology, logic, rhetoric, mental philosophy and psychology);

¹Harris, "Ideal Education," op. cit., pp. 193-212.

²Ibid.

- B. Practical (relating to the will) (Studies here include civil history and the social sciences);
- C. Aesthetical (relating to the imagination or emotional nature) (Subjects here are fine arts, especially literature).¹

These five substantial provinces of human learning, covering the two aspects of nature and the five aspects of spiritual man, he thought should be represented in the course of study at every level from the primary school to the college.²

Pedagogics as Related to the Curriculum

In the writings of Dr. Harris the term "pedagogics" is used frequently; the phrase "course of study" is used often; but the term "curriculum" is seldom found. It is clear, however, that "pedagogics" was sometimes used to cover the combined meaning of "the art of teaching," "the body of knowledge and skills to be taught in school," and "the organization of courses for teaching purposes." An expository article, "The Science of Education," written in 1879 for The Journal of Speculative Philosophy, is one of the best examples of this tendency.³

Pedagogics not only considers the idea and nature of education which makes possible its true definition, but it also describes the division of the field of education into logical units. Also, it gives constant consideration to the historical evolution of education as an accomplishment of the human race, the various systems of education utilized by different civilizations in their time.⁴

This concept of education provided a logical basis for the curriculum of the normal school and went much further into background and theory than was required by the usual normal school course of study.

The science of pedagogy must first define the ideals we aspire to as a nation and as a race; next, we must see how to

¹Harris, "Elective Studies in Schools and Colleges," American Journal of Education, XIII (September, 1880), 9.

²Ibid.

³Harris, "The Science of Education," The Journal of Speculative Philosophy, VIII (April, 1879), 205-14.

⁴Ibid., p. 207.

elevate the child toward those ideals. This makes it necessary to decide what studies are necessary and how much study of them is good and wholesome--for there is a point beyond which thoroughness is not a virtue.¹

Child-study is not the point at which to begin the study of education. It is necessary first to find the great branches of human learning--the "doings of mature humanity," the goal of culture and the ideal of civilization. The second step is to adapt this body of knowledge to the age and maturity of the child in an attempt to bring him from his possibility to his reality. Child-study is essential but it is secondary--the nature of the child must be known as a means of facilitating the impartation of the knowledge which mature man conceives as necessary and desirable for the child to know.²

Dr. Harris' study of psychology as applied to the curriculum led him to the adoption of a spiral or recurring treatment of subject materials. He believed that the development of the human mind is such that it requires contemplation of a given concept at regular intervals in order to arrive at complete comprehension--that no one subject or topic should be expected to be completely mastered in one treatment and never returned to again. This concept of the learning process led to a definite pattern which he followed in developing the course of study. The pattern is exemplified in his description of the arithmetic course of study:

The child should not study only addition this year and only subtraction next year, and try to exhaust each of these subjects before proceeding to others. . . . We must learn the methods of all the elementary processes at once, but with easy applications quite within the grasp of the child's mind during his first year's work. The next year the return of the spiral brings him to those topics again but in connection with more difficult applications. . . .³

Another province of pedagogics is that of organizing curriculum content into what Dr. Harris called "pedagogic form." By this expression he meant the reduction of a branch of knowledge

¹Harris, "The Study of Arrested Development in Children as Produced by Injudicious School Methods," op. cit., p. 455.

²Ibid., p. 466.

³Twenty-third Annual Report of the Board of Directors of the St. Louis Public Schools, 1877, p. 191. St. Louis: John J. Daly and Co., 1878.

to a shape or form in which it may be taught in progressive lessons with appropriate apparatus or illustrative materials, as the case may be, to facilitate the instruction process.¹ In the case of the "modern subjects," modern literature, science, industrial arts and home economics, this was a most pertinent problem.

Curriculum revision.--It was not Dr. Harris' presumption that a definition of the curriculum once accomplished would be final and complete. His faith was in growth and development and he looked with much satisfaction to the spread of scientific study in all fields, but particularly in education, as evidence of an evolving social order which would tend to keep the school dynamic. He was concerned lest the college should channel and stratify the public school curriculum to the point where it would no longer be responsive to the needs of the people.²

To prevent a static condition in education Dr. Harris proposed that normal schools should teach the necessity for perennial modification of methods and of the contents of instruction with a view to preserve the spirit of the school in its body. His stated object was to prevent the work of the school from becoming mechanical for this would mean the spirit had departed.³

If idealism has any truth--if there is any basis for a spiritual theory of the universe--it will become manifest to us in a study of the history of the world and of mankind. Educational thinkers, above all others, must be active in this field, and see that no merely preliminary and half-views be forced upon them.⁴

Perhaps the chief delight which Dr. Harris derived from the Report of the Committee of Ten on Secondary Schools was the fact that a fundamental analysis of the curriculum had been engendered with much ensuing comment and discussion. So much good had come from this Committee's work that he assumed it would in-

¹Harris, "Our Public School System," op. cit., p. 279.

²Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools, 1874, pp. 71 ff. St. Louis: Democrat Lithographing and Printing Company, 1875.

³Harris, "The Editor's Preface," J. M. Greenwood, Principles of Education Practically Applied, p. vii, International Education Series, ed. Wm. T. Harris. New York: D. Appleton and Co., 1901.

⁴Harris, "The Study of Evolution in Education," American Journal of Education, VII (July, 1874), 3.

augurate an era of curriculum analysis--a movement which he hoped would continue indefinitely.¹

Summary and Conclusions

According to Dr. Harris the principles to be observed in defining the common school curriculum are these:

1. Education is acquired through several social institutions but only the school should be recognized as the agency for discipline and instruction in the conventionalities of intelligence;
 - a. Education is the chief concern of social science and through social science education should preserve its dynamic state;
 - b. Education of the school should be considered preliminary to the education of life and its chief purpose is to give the student the skills necessary to a life-long pursuit of culture;
 - c. Education of the school should be restricted to the knowledge and skills which the pupil is not likely to pick up elsewhere;
 - d. Education of the common school should deal only with such matters as have a general theoretical bearing on the world, its institutions and its peoples;
 - e. Education of the common school should not concern itself directly with vocational information or skills;
 - f. Education of the school should be concerned with moral and ethical training completely divorced from secular and religious connotation;
2. The content of the public school curriculum should be selected so as to develop (1) the knowledge and skills requisite to democratic society, (2) the socialization of the individual, (3) the optimum talents and innate abilities of the individual, (4) a knowledge and appreciation of the wisdom of the race, and (5) the tools of thought, communication, and preservation of knowledge;
3. The curriculum of the public school should be determined by an analysis of adult living--not by an analysis of child interests or needs;
4. The common school curriculum should be organized into

¹Harris, "The Committee of Ten on Secondary Schools," Educational Review, VII (January, 1894), 3-4.

two general philosophical areas, the spiritual and the natural, which define the five substantial provinces of human learning; each of these provinces should be represented at every level of school instruction;

5. Pedagogics should concern itself with a continuous analysis and refinement of the public school curriculum;

- a. The nature of the learning process should require the organization of curriculum content into spiral or cyclical learning experiences.

CHAPTER V

THE COURSE OF STUDY

The definition of the curriculum by Dr. Harris provided the theoretical and philosophical outline for the instruction to be provided by the public school. This in itself was a great contribution to educational progress in America but Dr. Harris did not stop at this point; he saw the practical necessity for a further refinement of his five substantial areas of learning to adapt them for classroom use.

The question of the course of study--involving as it does the selection of such branches as shall in the most effective manner develop the substantial activity as well as the formal activity of the child, is the most important question which the educator has before him.¹

The Course of Study in General

In one of Dr. Harris' earliest statements (1868) on the subject he takes a position that the only tenable course of study is one that "takes up in order the conventionalities of intelligence."² The most important element in this statement is the term "in order" which implies a definite system or standard pattern of instruction and assumes a preliminary analysis and organization of the subject matter. "The acquirement of myriads of facts is a poor substitute for the culture derived by devoting the same time to the fundamental studies in their regular sequence."³ In taking this stand and proceeding to implement it Dr. Harris became a leader in the revolt against the "object-lessons" type of course which had been given a great vogue by the

¹Wm. T. Harris, "Elective Studies in Schools and Colleges," American Journal of Education, XVIII (September, 1888), 10.

²Fourteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1868, p. 94. St. Louis: George Knapp and Co., 1869.

³Ibid.

Mayos in England and the Oswego School in America.

The most elementary and essential school disciplines, according to Dr. Harris, are those which "appertain to the quantifying of the world of nature (mathematics) and to the communication with one's fellow-men (language--reading, writing, grammar, etc.)."¹ This justifies their placement in the earliest years of school experience. In the report of a Committee on "A Course of Study from Primary School to University," of which Dr. Harris was chairman, to a General Session of the National Educational Association in 1875² he reiterates the importance of the "three R's" but qualifies the statement by concluding that they are not exclusively important--that there are other elementary branches which must be considered important also. The committee concluded that each one of the several fields of the objective world of man and nature should be represented at each point in the course of study. The committee recommended the following tabulated scheme for a general course of study from primary school to university, omitting kindergarten:

District or Common School

Topics Relating to Nature:

Inorganic--arithmetic, oral lessons in natural philosophy;
Organic or Cyclic--geography, oral lessons in natural history.

Topics Relating to Man; or "The Humanities":

Theoretical (Intellect)--grammar (reading, writing, parsing and analyzing);
Practical (Will)--history (of United States);
Esthetical (Feeling and Phantasy)--reading selections from English and American literature, drawing.

High School or Preparatory School

Topics Relating to Nature:

Inorganic--algebra, geometry, plane trigonometry, analytical geometry, natural philosophy, chemistry;
Organic or Cyclic--physical geography, astronomy (descriptive), botany or zoology, physiology.

Topics Relating to Man; or "Humanities":

Theoretical (Intellect)--Latin, Greek, French or German, mental and moral philosophy;
Practical (Will)--history (universal), Constitution of the United States;

¹Harris, "Instruction in Natural Science," American Journal of Education, VIII (April, 1875), 9.

²Harris, "A Course of Study from Primary School to University," The Western, n.s., II (September, 1876), 521-38.

Esthetical (Feeling and Phantasy)--history of English literature, Shakespeare or some standard author (one or more whole works read), rhetorical (declamation and composition), drawing.

College or University

Topics Relating to Nature:

Inorganic--analytical geometry, spherical trigonometry, differential and integral calculus, physics, chemistry, astronomy, (etc., electives);

Organic or Cyclic--anatomy and physiology, botany, zoology, meteorology, geology, ethnology, (etc., elective).

Topics Relating to Man; or "The Humanities":

Theoretical (Intellect)--Latin, Greek, French or German, comparative philology, logic, history of philosophy, Plato or Aristotle, Kant or Hegel, (or a representative of ancient philosophy and also one of modern philosophy);

Practical (Will)--philosophy of history, political economy and sociology, civil and common law, constitutional history, natural theology and philosophy of religion;

Esthetical (Feeling and Phantasy)--philosophy of art, history of literature, rhetoric, the great masters compared in some of their greatest works; Homer, Sophocles, Dante, Shakespeare, Goethe, Phidias, Praxiteles, Skopas, Michael Angelo, Raphael, Mozart, Beethoven, etc.¹

Subject Analysis

Reading--In the order of elementary studies Dr. Harris placed reading first "for by it the pupil becomes able to pursue independent study and thus to add to what he receives from his teacher."² The pupil should be taught not only how to read but he should also be instructed what to read both in school and out.³

Writing--Writing should be taught concurrently with reading.⁴

Arithmetic--The teaching of arithmetic should begin almost as early as reading. It is a basis for all knowledge concerning the natural aspects of living, the structure of time and

¹ Ibid.

² Official Proceedings, Board of Public Schools, St. Louis, I (October 10, 1871), 96.

³ Twenty-second Annual Report of the Board of Directors of the St. Louis Public Schools, 1876, p. 137. St. Louis: Slawson, Printer, 1877.

⁴ Official Proceedings, Board of Public Schools, St. Louis I (October 10, 1871), 96.

space and the logical conditions of the existence of matter and motion. Reading and writing of numbers, addition, subtraction, multiplication, and division are taught the first year as applied to small numbers. The second year repeats the same processes with larger numbers and adds some knowledge of money and coins. The third year repeats these elementary processes with still larger numbers. Subsequent years review the same operations and carry them into higher and higher applications.¹

Geography.--Geography should be included in the course of study as soon as the student learns to read with a degree of facility.² Political geography is to be preferred rather than physical since all geography should be studied in the interest of civilization.³

Language.--After the four elements, in order of importance, comes language which "is the most wonderful tool or instrument that man possesses."⁴ It is the instrument which makes possible a rational existence for man. "Words express not things alone but also forces--processes. . . . To slight the science of language in a course of study, is to insult the object of all study itself."⁵ In 1874, Dr. Harris deplored the growing practice of making grammar "a study of the derivation and significance of accidents (declension, comparison, and conjugation)"; he favored more emphasis on its logical analysis and syntactical relations.⁶

Science.--One of Dr. Harris' major contributions to education was his organization of the science course of study. Of the modern subjects (science, literature, and history) he classi-

¹Twenty-third Annual Report of the Board of Directors of the St. Louis Public Schools, 1877, p. 192. St. Louis: John J. Daly and Co., 1878.

²Official Proceedings, Board of Public Schools, St. Louis, I (October 10, 1871), 96.

³Harris, "The Study of Geography," American Journal of Education, VI (November, 1873), 5.

⁴Harris, "Instruction in Natural Science," op. cit., p. 9.

⁵Harris, "A Course of Study from Primary School to University," The Western, n.s., II (September, 1876), 525.

⁶Harris, "Revolution in Course of Study," American Journal of Education, VII (May, 1874), 3.

fied science as first in importance. He considered it such an important body of knowledge that he introduced science instruction in the lowest grade of the school with lessons on plants. In the second year animals were studied with some emphasis on the human body. The third year introduced the pupil to physical forces and geological and meteorological elements. Following the third year science instruction took a more practical turn and attempted to teach the usefulness of science to man.¹

Dr. Harris pointed out the undesirability of teaching a fragmentary, disconnected course in science and the temptation which had to be resisted to select subject matter to illustrate the strange or wonderful. Science was not to be taught as entertainment. Not only must the topics for teaching be carefully selected from the multitudinous topics in the science area but the ones selected must be adapted to the comprehension of the average pupil in each given grade level.² The complete and careful analysis of the science course of study in the Annual Report of 1871 has been termed by Cubberley as "a classic document in the history of education in the United States."³

Science instruction in the elementary school was expository and descriptive. It was oral instruction--largely because no adequate texts were available--and the period of science instruction was one hour per week.

One lesson a week, if it is made an hour long, will take the child over the rudiments of all the sciences and give him possession of the point of view which they hold towards the world. . . . The smattering of science given in a systematic course of lessons in natural science serves chiefly to open the eyes of the mind to a great province before invisible to it.⁴

¹Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1871, p. 174. St. Louis: Plate, Olshausen and Co., 1872.

²Ibid., p. 134.

³Ellwood P. Cubberley, Public Education in the United States, p. 392. Boston: Houghton Mifflin Co., 1934.

⁴Harris, "Industrial Education in the Common School," Education, VI (June, 1886), 608.

Syllabus of Lessons in Natural Science

Seventh Grade, or first year of school: Plants or outline of botany.

First quarter: Flowers, their structure, color, perfume, habits and shapes.

Second quarter: Leaves, fruits, seeds, their shape &c., uses, sap, decay.

Third quarter: Buds, roots, their purpose, stalks and trunks, bark of plants, wood.

Fourth quarter: Circulation of sap, what is made from sap, sleep of plants, &c. Review of topics for the year.

Sixth Grade, or second year of school: Animals, or outline of zoology or physiology.

First quarter: Blood, what it makes; how it is made. The Ground, what comes from it as food for animals; stomach and teeth; circulation of the blood.

Second quarter: Breathing; brain and nerves; use of the senses; seeing; protection of the eyes; hearing; smell; taste; touch; the bones; muscles.

Third quarter: Brains and nerves in animals compared with those in man; limbs of animals and their uses; the hand in man and its substitutes in animals; what instruments and tools animals possess for attack and defence.

Fourth quarter: Wings and fins; clothing of men and animals; wherein man is superior to animals; intelligence of animals; sleep, its uses; death, what it is. Review of the year.

Fifth Grade, or third year of course: Elements of physical nature.

First quarter: Air; wind; flying and swimming compared; pressure of the air, pumps, barometer, air-pumps, pop-guns, gases distinguished from liquids, gunpowder.

Second quarter: Balloons, bubbles, heated air, chimneys, draft and ventilation, uses of water, water-level, pressure of water, attraction in solids and in liquids.

Third quarter: Water in the air, clouds, snow, frost and ice, heat and cold, communication or conduction of heat, effects of heat, steam, light, color, electricity, magnetism.

Fourth quarter: Gravitation, motion of the earth, friction. Review of the year.

In the lowest three years of the course these subjects must necessarily be treated very superficially. But for the

Fourth Grade, or fourth year in school, I would have the topics of seventh grade and sixth grade (plants and animals) reviewed, with more thoroughness, adding some lessons on the solar system.

Third Grade, or the fifth year of the course, I would have all the previous work, plants, animals and the physical elements, together with the outlines of astronomy, reviewed.

Second Grade, or the sixth year of the course, should take up a special course in physical geography, as follows:

- First quarter: Geology, structure of land, form of continents, islands, mountains and valleys, plateaus, plains, volcanoes and earthquakes.
- Second quarter: The water; springs, river, lakes, the ocean, tides, waves, winds, currents, relation to commerce and climate.
- Third quarter: Meteorology, the atmosphere, temperature, the winds, moisture of atmosphere, dew, fogs, rain, snow and hail, climate, electrical and optical phenomena of the atmosphere.
- Fourth quarter: Organic life, botany, zoology, ethnography, relation of plants, animals and men to their place of abode.

First Grade, or the seventh year of the course: Special course in natural philosophy as illustrated in familiar objects, natural and artificial:

- First quarter: Matter and its properties; force, molecular forces, gravitation and weight, specific gravity, center of gravity, motion, action and reaction, compound motion.
- Second quarter: Machinery; friction, strength of materials, use of materials in construction, hydrostatics and capillary attraction, hydraulics, pneumatics, acoustics.
- Third quarter: Heat and its sources, communication and effects; steam-engine; warming and ventilation; meteorological instruments, thermometer, barometer, hygrometer, rain-gauge, anemometer; classes of clouds; classes of winds; meteors, and aerolites, aurora borealis; halos; circulation of water through evaporation, clouds, rain, springs, rivers, ocean, &c.
- Fourth quarter: Light, sources, reflection, prismatic spectrum, structure of the eye; optical instruments, telescope, microscope, &c.; electricity; magnetism; electro-magnetism; telegraph.¹

It is noteworthy that when this outline was made (1871) there were but seven grades in the St. Louis elementary schools; the lowest grade was called the seventh; the highest grade, the first. In 1877 when Dr. Harris re-outlined the course in the Annual Report the grades were named in reverse to conform with standard practice and he had made minor adjustments to accommodate the eighth year:

¹Official Proceedings, Board of Public Schools, St. Louis, I (October 10, 1871), 97 f.

First year --Outlines of botany;
 Second year --Outlines of zoology and physiology;
 Third year --Elements of physical nature and natural philosophy. This completes the subject of natural science in its most general aspect. A second revolution of the spiral brings us through each of these topics with a more stringent method and with more explicitness of detail;
 Fourth year --Botany systematically studied;
 Fifth year --Zoology, physiology and hygiene;
 Sixth year --Natural philosophy and astronomy;

 The third revolution of the spiral course occupies two years in our course of study;
 Seventh year--Outlines of geology, the water, meteorology, the life and distribution of plants, animals and men on the globe;
 Eighth year --Natural philosophy.¹

At the high school level science should be taught as a disciplinary subject--one in which definite lessons are assigned and prepared by the student.² Dr. Harris was disappointed when the Committee of Ten found it necessary to omit from the second and third years of the classical course in high school all natural sciences. It was his desire to have physics in the second year of high school, botany and zoology in the third, and chemistry in the fourth year. In each case he wanted the course of study to require three lessons a week.³

Literature.--The second of the "modern subjects" which Dr. Harris wanted in the course of study was literature.

By the study of literature [the student] learns to know the sentiments and feelings that have inspired the different peoples of the world, and especially his own racial stock. . . . He learns the ways of thinking of his fellow men and their habits of action. He thus acquires through literature the most practical of all practical learning, the knowledge of human nature.⁴

Literature was introduced in the form of extracts and stories in the reading texts of the elementary school.

¹Twenty-third Annual Report, op. cit., pp. 191 f.

²Harris, "Our Public School System," The Chautauquan, VIII (February, 1888), 279.

³Harris, "The Committee of Ten on Secondary Schools," Educational Review, VII (January, 1894), 9-10.

⁴Harris, "Excessive Helps in Education," Education, IX (December, 1888), 216.

History.--History logically succeeded grammar, according to Dr. Harris, because grammar prepares the way by analyzing the structure of the human mind as it is revealed in language. History is justified in the course of study because it shows how human character unfolds through the ages. "Knowledge of men is more important than knowledge of things." It is necessary then that each individual realizes that he can do nothing nor achieve anything without the aid and consent of his fellowmen. History teaches the springs and motives of human action.¹

Latin and Greek.--Dr. Harris was quite concerned that the trend of the times was to discard or greatly curtail the study of Latin and Greek. The evolution of his own thinking on this subject is best reported in his remarks to the National Educational Association in 1894:

I left Yale College in my junior year because I disbelieved in Latin and Greek as the staples of higher education. I believed that it was a piece of affrontery to force them on young men. I went off to the West and began to study philosophy. . . . I soon found that there was one good reason why a man should know Latin and Greek, namely, to learn the vocabulary of words in our language used to express fine shades of thought. . . . It is impossible for any man to see our civilization in its true meaning without some knowledge of Latin and Greek, because its embryology is found in Greece and Rome. I think the first six months of the study of Latin is worth more than any subsequent six months.²

For those students who ended their formal schooling with the high school Dr. Harris especially recommended a study of the classics. He felt Latin was so important as a culture study that if a student completed only one year of high school he should study Latin during that time because it would give him more "power of insight" than any other study.³

It is interesting to note that Dr. Harris advocated Latin and Greek for the higher education of the negro--that it is just as important for him to be familiar with these two derivative

¹Official Proceedings, Board of Public Schools, St. Louis, I (October 10, 1871), 97.

²National Educational Association, Journal of Proceedings and Addresses, 1894, p. 566.

³Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1873, p. 81. St. Louis: Democrat Lithographing and Printing Co., 1874.

elements in his life as it is for the white youth to know them.¹

Drawing and art.--Dr. Harris made some distinction between drawing and art. Drawing he classified as "first among the disciplines fitting for manipulation" and so important that it should be in the course of study in the common school all through the grades. Its first value is esthetic and its second is a training of the hand and eye.²

Drawing was first fixed in the course of study of the St. Louis Public Schools in 1871. At that time it was made a regular branch of instruction for all classes in the first three grades.³

There was a constant tendency on the part of Dr. Harris to associate art, particularly drawing, with industrial production and commerce. Its utilitarian value was emphasized over and over.

Industrial drawing is of undoubted benefit because it helps all pupils by cultivating their taste for beautiful forms and systematic arrangement; besides it makes skillful the hand and the eye. Where ever taste comes into industries a quick market is secured at home and abroad. This is the best of all industrial studies because it permanently elevates the laborer by elevating the quality of his work.⁴

The vocational aspects of art instruction was the subject of an address to the National Educational Association in 1889. In this address, entitled "Art Education the True Industrial Education--A Cultivation of Aesthetic Taste of Universal Utility," he declared:

. . . . The cultivation of taste, the acquirement of knowledge on the subject of the origin of the idea of beauty , the practice of producing the outlines of the beautiful by the arts of drawing, painting and modeling, the criticism of works of art, with view to discover readily the causes of failure or of success in aesthetic effects--all these things we claim form the true foundation of the highest success in the industries of any modern nation. The dynamic

¹Harris, "The Education of the Negro," The Atlantic Monthly, LXIX (June, 1892), 733.

²Harris, "Industrial Education in the Common Schools," op. cit., p. 610.

³Official Proceedings, Board of Public Schools, St. Louis, I (November 28, 1871), 112.

⁴Harris, "Our Public School System," op. cit., p. 279.

side is needed; but invention of the useful does not succeed in controlling the markets of the world. A nation with its laborers all educated in their taste for beautiful forms will give graceful shapes to their productions, and command higher prices for them.¹

A different emphasis was evident in a later address to the Department of Superintendence (1897). In this discourse he stressed the point that art preserves for humanity "the precious moments, the elevated insight of seers who are, next to the religious seers, the greatest teachers of the human race." The course of study then should make the greatest works of art familiar to the people; the teacher by successive stages should lead her pupils to greater appreciation and finer taste.²

Music.--The necessity for including music in the course of study was seemingly taken for granted. The course of music instruction outlined for the St. Louis Elementary Schools in 1872 is of interest. Although music evidently was taught by special instructors, all teachers were instructed to give special attention to (1) the position of pupils while singing, (2) quality of tone (harshness and screaming were not allowed), (3) pronunciation, and (4) expression with regard to the sentiment of the selection. [When this Course of Instruction was promulgated the lowest primary grade was called the seventh grade.]

Course of Instruction in Music

Seventh Grade:

Numbers at first, and afterwards the notes and staff to some extent.
Whole scale used. Whole, half and quarter notes and corresponding rests.
Intervals taught: from one to any other note in scale up to 5.
Voices not tried above E flat.
Dynamical marks taught as they occur in the lessons.
Songs; twenty new ones learned. N. B. No songs taught except under the direction of the music teacher.

Sixth Grade:

Whole scale. Special attention to rhythm.
Whole, half and quarter notes and corresponding rests.
Intervals from 1 to any other note in the scale up to 8.
Voices not above E flat.

¹National Education Association, Journal of Proceedings and Addresses, 1889, pp. 647 ff. Topeka: Kansas Publishing House, 1889.

²Report of the Commissioner of Education for the Year 1898-99, I, 690 ff. Washington: Government Printing Office, 1900.

Dynamical marks continued.

Songs: twenty new ones.

Fifth Grade:

Scale carried to the third above.

Whole, half and quarter notes; corresponding rests. Accidentals taught.

Intervals from 1 to 1p. Major and minor thirds introduced.

Voices not above F.

Dynamical marks.

Songs; twenty new ones: and exercises in one and two parts.

Fourth Grade:

Scale carried to the third above.

Whole, half, quarter, eighth and sixteenth notes; corresponding rests.

Intervals: major and minor thirds continued.

Voices not above F.

Transpositions commenced: Keys of C, G, D, F.

Dynamical marks.

Songs; twenty new ones: one and two parts.

Third Grade:

Scale to five above.

Chromatic intervals.

Voices not above G.

Transposition continued: keys of A, E, B flat and E flat.

Dynamical marks.

Songs; twenty new ones: one and two parts.

Second Grade:

Scale to five above.

Chromatic intervals continued.

Voices not above G.

Transposition continued through the most common major keys.

Dynamic marks.

Songs; twenty new ones: one, two and three parts.

First Grade:

Scales and chromatic intervals.

Voices not above G.

Transposition in the most common minor keys.

Dynamic marks.

Songs; twenty new ones: one, two and three parts.¹

Manual training.--Dr. Harris was unequivocally opposed to including manual training in the public school curriculum. For many years he engaged in a running exchange of verbal encounters with Professor Woodward of Washington University [St. Louis] who was one of the outstanding exponents of the manual training movement. Dr. Harris' attitude is well expressed in a report of The Committee on Pedagogics of the National Council of Education which he presented to a General Session of the National Educational Association in 1889:

¹Official Proceedings, Board of Public Schools, St. Louis, I (February 13, 1872), 131 f.

The subject of the Educational Value of Manual Training has come to be of prime importance by reason of the strong claims set up for it by its advocates, and secondly, by reason of the fact that as a cause it serves to unite not only the critics of the educational system already existing, but also its uncompromising enemies; thirdly, because the claims set forth in its behalf are based, not on economic reasons, but on educational reasons, an assumption is being actually made that the effect of manual training on the pupil is educational in the same sense as the branches of science and literature heretofore taught, or at least if different from them, of equal or of superior value to them.

Your committee in the outset admit the reasonableness of substituting a system of manual training in special schools, in so far as it can be done, for the old system of apprenticeship. But your committee insist that such manual training ought not to be begun before the completion of the twelfth year of the pupil, nor before he has had such school instruction in the intellectual branches of school-work, namely, in reading, writing, arithmetic, geography, grammar, and history, as is usually required by those statute laws enforced in enlightened States to prevent the too early employment of minors in the industries, and the neglect of their school education. Your committee understand that any amount of manual training conducted in a school is no equivalent for the school education in letters and science, and ought not be substituted for it.

The economic, utilitarian opposition to the spiritual education in our schools comes before us to recommend that we forecast the horoscope of the child, and in view of his future possible life of drudgery make sure of his inability to ascend above manual toil by cutting off his purely intellectual training, and making his childhood a special preparation for industry.

Your committee would at this point call attention to the fatal omission on the part of the economist to see what is implied in his statement, that the schools should fit the child for his future duties in life. For when we inquire, we discover at once that the trade or vocation life is but a small part of the total functions of anyone's life. It is what goes with the trade or vocation that makes even it a success or failure.¹

Home economics.--"Cookery" was the only phase of home economics recognized as belonging in the course of study and it only as an extra "information study" or "miscellaneous exercises."²

A course of ten lessons in cookery requiring a set of pupils to devote one half-day each week for ten weeks,

¹Harris, "The Educational Value of Manual Training," National Educational Association, Journal of Proceedings and Addresses, 1889, pp. 417 f. Topeka: Kansas Publishing House, 1889.

²Harris, "Our Public School System," op. cit., p. 279.

benefits the entire population. Every woman should understand enough to cook properly plain, wholesome food herself, and to teach others how to do it.¹

Agriculture.--Instruction in the science of farming was not common but Dr. Harris supported the idea for country schools. He advocated a class period once each week or once each two weeks to teach "the Principles that lie at the basis of good farming."²

Physical education. -In 1873 a proposition was made to the board of education by one Anthony Nacke concerning the introduction of physical culture into the St. Louis schools. His proposition was declined "on account of impracticability by reason of lack of time in the programme of exercises for the District Schools."³

In 1891 Dr. Harris said he was not convinced that the current theory of physical education gave enough weight to the body conditions and exercises which restore nervous energy. He questioned particularly the practice of substituting calisthenics for the old fashioned recess. Whereas the recess was recreation and relief from tension, the calisthenics was merely the substitution of a different kind of tension sans relaxation or recreation.⁴ One of the great defects in physical education as taught in the schools, according to Dr. Harris, was that it had become a "will-training" course demanding strict attention and no relaxation until its main purpose in the school program was defeated.⁵

The Elementary School Course of Study

The evolution of the grade school program of studies reached its culmination for this period in the schedule drawn up by the Committee of Fifteen on Elementary Education. Dr. Harris

¹Harris, "Industrial Education in the Common Schools," op. cit., p. 610.

²Ibid.

³Official Proceedings, Board of Public Schools, St. Louis, I (September 9, 1873), 261.

⁴Report of the Commissioner of Education for the Year 1891-92, I, xix. Washington: Government Printing Office, 1894.

⁵Report of the Commissioner of Education for the Year 1889-90, I, 1155. Washington: Government Printing Office, 1893.

was chairman of the Sub-Committee on the Correlation of Studies in Elementary Education and was responsible for writing much of the report of the Committee of Fifteen. The revolutionary part of this report was the recommendations that some of the traditional secondary school subjects, algebra and Latin, French or German be introduced in the last two years of the elementary school.¹ Dr. Harris considered this an important step in bridging the gap between the elementary and secondary schools. At the same time the introduction of these subjects at the lower level prevented repetitious review of common school subjects while it allowed the pursuit of more of the modern subjects in the upper years of high school without any neglect to the classical subjects.

The Committee of Fifteen recommended fifteen minutes recitation periods in the first and second grades, twenty-minute periods in the third and fourth grades, twenty-five-minute periods in the fifth and sixth grades, and thirty-minute periods in the seventh and eighth grades.²

¹Report of the Commissioner of Education for the Year 1893-94, I, 527 ff. Washington: Government Printing Office, 1896.

²Ibid.

THE IDEAL ELEMENTARY COURSE OF STUDY¹

Subject	Grades	Time Allotted and Variations
Reading	1-8	daily
Penmanship	1-6	10 lessons per week--Grades 1-2 5 lessons per week--Grades 3-4 3 lessons per week--Grades 5-6
Spelling	4-6	4 lessons per week
Grammar	1-7	5 lessons per week. Oral composition or dictation to middle of 5th grade, textbook instruction from middle of 5th grade through seventh. Composition writing required
Latin or French or German	8	5 lessons per week
Arithmetic	1-6	5 lessons per week. Oral instruction, grades 1-2; textbook instruction, grades 3-6
Algebra	7-8	5 lessons per week
Geography	2-8	5 lessons per week, grades 2-7 3 lessons per week, grade 8 Oral lessons, 2d to middle of 3d grade; textbook from middle of 3d grade through eighth
Natural Science and Hygiene	1-8	Sixty minutes per week
History of United States	7-8A	Five hours per week
General History and Biography	1-8	Sixty minutes per week
Physical Culture	1-8	Sixty minutes per week
Vocal Music	1-8	Sixty minutes per week
Drawing	1-8	Sixty minutes per week
Manual Training, Sewing, Cooking	7-8	One-half day each week

¹Report of the Commissioner of Education for the Year 1893-94, I, 527 ff. Washington: Government Printing Office, 1896.

The kindergarten.--The kindergarten is considered in some detail in Chapter III and Chapter VII in connection with its development and methods of instruction. The course of study at this level was an adaptation of that suggested by Froebel. The adaptations by Dr. Harris were generally in the direction of organization and system. The course of instruction approved by Dr. Harris called for emphasis on activities which developed:

1. Skill in recognition and production of forms
2. A theoretical knowledge of form and number
3. Desirable habits and manners
4. Imaginative powers
5. Healthful training of the body¹

The phonetic system.--To Dr. Harris may be given a great deal of the credit for popularizing the phonetic method in the teaching of reading. While he was an elementary school principal he noted the inefficient and time-consuming procedure of teaching reading by the old A B C, letter-combination, word-building method. He secured permission to experiment with Leigh's Phonetic System in the Clay School in 1866. At the end of a year of trial Dr. Harris summed up its advantages as:

1. A gain in time; [he estimated that pupils learned twice as fast as they did under the previous "Alphabetical" teaching].
2. Distinct articulation; it helped eliminate foreign accent and assisted those with impediments of speech.
3. It recognizes the logical inconsistency of the ordinary alphabet by listing the numerous ways in which each letter is used.
4. It substitutes analytical drill during the first year of training for the loose word method previously in vogue; analysis and synthesis are taught from the start.²

As a result of Dr. Harris' experiment the phonetic method of teaching reading was adopted for the entire St. Louis system beginning with the school year 1867-68.³

In March of 1871 a group of school superintendents from Chicago, Toledo, Milwaukee, and Detroit visited in the St. Louis

¹Harris, "A Course of Study from Primary School to University," op. cit., pp. 521 ff.

²Harris, "The Phonetic System," Journal of Education, II (April, 1870), 141.

³Ibid.

schools particularly to examine the working of the phonetic method of teaching reading. Superintendent Harris reported to his board that the demonstration was most creditable to the St. Louis system and that he was led to believe the phonetic system would shortly be introduced into several of those cities.¹

The High School Course of Study

Since Dr. Harris considered the high school a part of the great American common school it was natural for him to emphasize its similarity with the elementary school as to purpose. He conceived of the high school as preserving the symmetry of the grade school, opening further the "windows of the soul" (1) reading and writing, (2) arithmetic, (3) geography, (4) grammar, and (5) history and "continuing on toward the more complete mastery of METHOD."²

He lamented the fact that the high school course of study is "nailed to the calendar," that progress is rigid and determined by the lapse of time rather than by the progress of the pupil.³

In 1871, on Dr. Harris' recommendation, the St. Louis Board of Education approved a dual course of study for the high school. The classical course included the studies required for admission to the best American colleges. The general course, also occupying four years, "embraced the mathematics and drawing necessary for an accomplished engineer; the Latin language, so far as is possible and desirable for general culture, for more thorough acquaintance with general grammar and with our own language, and to facilitate the acquisition of modern languages; the reading and speaking of German and French; and such studies in science and literature as shall best fit pupils for different departments of business, and make them generally intelligent."⁴

¹Official Proceedings, Board of Public Schools, St. Louis, I (April 11, 1871), 41.

²Harris, "What Shall We Study?" Journal of Education, II (September, 1869), 1.

³Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, p. 47. St. Louis: Democrat Lithographing and Printing Co., 1873.

⁴Seventeenth Annual Report, op. cit., p. 58.

General Course of Study for the High School¹

Topics Relating to Nature:

Inorganic -- Algebra, geometry, plane geometry, analytical geometry, natural philosophy, chemistry.

Organic or Cyclic -- Physical geography, astronomy (descriptive), botany or zoology, physiology.

Topics Relating to Man; or "The Humanities":

Theoretical (Intellect) -- Latin, Greek, French or German, mental and moral philosophy.

Practical (Will) -- History (universal), constitution of the United States.

Aesthetical (Feeling-Phantasy) -- History of English literature, Shakespeare or some standard author, rhetoricals (declamation and composition), drawing.

The arrangement of courses according to year of school was outlined as follows in 1875:

First Year: Latin, algebra, physical geography, rhetoricals, drawing.

Second Year: Latin, algebra and geometry, natural philosophy, rhetoricals, drawing.

Third Year: Latin or French or German, chemistry and physiology (each one-half year), geometry, universal history, history of art.

Fourth Year: Latin, or French or German or Greek, trigonometry (one-half year), constitution of the United States, history of English literature, Shakespeare or Milton (one-half year), botany, zoology or geology (one quarter or one-half year).²

Language was allowed four years; mathematics, four years; natural science, three years; drawing and rhetoricals, four years; culture studies, one year; and history, one year.³

Elective studies. -- The problem of elective or optional subjects in the high school was the center of much discussion for many years. Dr. Harris was of the opinion that youth usually had not reached the maturity of judgment necessary to make such decisions for himself but should be guided by his instructors.⁴ The

¹Nineteenth Annual Report, op. cit., p. 84.

²Twenty-first Annual Report of the Board of Directors of the St. Louis Public Schools, 1875, p. 59. St. Louis: Globe-Democrat Job Printing Co., 1876.

³Seventeenth Annual Report, op. cit., p. 63.

⁴Harris, "Elective Studies in Schools and Colleges," op. cit., p. 10.

dual course of study, which he accepted against his better judgment, aggravated the situation. His concern was that the symmetry of the course of study be preserved with each department of knowledge represented in the proper manner--that no course relating to inorganic nature be substituted for one relating to organic nature, or vice versa. Under no circumstances should the study of ancient languages be omitted.¹

In the more important branches there should be no option left to the pupil in the high school, for example, all should be required to take Latin, Algebra and Geometry, Universal History, Constitution of the United States, History of English Literature, Rhetoricals, Natural Philosophy and Physical Geography.²

The Normal School Course of Study

The work of the normal school, according to Dr. Harris, should consist of (1) a review of all those subjects which will be taught by the normal graduate, (2) a study of the relation of all branches in the curriculum to each other, (3) the history of educational reformers, (4) a study of the organization and administration of schools, (5) a study of what each branch will do for the pupil in the way of mental training, (6) the history of education with emphasis on origin of civil, religious, and other institutions, (7) the study of psychology, (8) some severe study of disciplinary subjects such as Latin and mathematics (regardless of whether the student has had the same subject in high school), and (9) natural science in a general rather than a specific way.³ He sums up the normal school subject matter under four heads:

1. A review of the common branches
2. A professional course
3. A disciplinary course
4. General information in natural science.⁴

The St. Louis Normal School in 1875 added a semester of

¹Ibid.

²Harris, "A Course of Study from Primary School to University," op. cit., p. 536.

³National Educational Association, Journal of Proceedings and Addresses, 1888, pp. 494 ff.

⁴Ibid.

work so that a total of two-and-one-half years were required to complete the prescribed course of study.¹ The extra half year was devoted to additional courses (philosophy of teaching, history of education, Latin or historical grammar, and a course in reading) and the requirement was made that one-half day each week be spent in practice teaching in the district schools or in observation of methods of instruction and management.² A special elementary school had been designated in 1872 as a school of observation for the normal school students.³ The principal of the normal school was responsible for the administration of the training school also. Board rules prescribed the method of utilizing the training school as a laboratory situation for the two upper classes of the Normal School.⁴

All recitations are conducted with special reference to the modes of teaching the branch of study under consideration. Teaching exercises in all studies are required in the Fourth and Junior Classes, to be given to the class. The teaching exercises indicated⁵ in the Middle and Senior Classes are before the whole school.

¹Official Proceedings, Board of Public Schools, St. Louis, II (September 14, 1875), 62-63.

²Ibid.

³Ibid., I (December 10, 1872), 225.

⁴Ibid.

⁵Twenty-first Annual Report, op. cit., p. 40.

COURSE OF STUDY--ST. LOUIS NORMAL SCHOOL¹

Fourth Class 20 Weeks	Junior Class 20 Weeks	Middle Class 20 Weeks	Senior Class 40 Weeks
.....	.....	Teaching Exercises	Teaching Exercises
Reading	.....	.....	Reading
Physiology	.....	.....	.....
Algebra	Algebra	.....	.....
History (General)	.....	.....	.....
Latin	Latin	Latin	Latin
Writing	.....	.....	Writing
.....	Geography (Physical)	Geography (Physi- cal)	Geography (Politi- cal)
.....	Geometry	.....	.....
.....	Natural	.....	.....
.....	Philosophy	.....	.....
.....	.....	Arithmetic	Arithmetic
.....	.....	Constitution of United States	.....
.....	.....	English Literature	.....
.....	.....	Theory and Art of Teaching	Theory and Art of Teaching
.....	.....	.....	History of Education
.....	.....	.....	Grammar Review
.....	.....	.....	Course of Reading
Zoology	Zoology	.....	.....
Composition	Composition	Composition	Composition
Drawing	Drawing	Drawing	Drawing
Singing	Singing	Singing	Singing
Spelling	Spelling	Spelling	Spelling
Mental Arith.	Mental Arith.	Mental Arithmetic	Mental Arithmetic
Calisthenics	Calisthenics	Calisthenics	Calisthenics

¹Twenty-first Annual Report of the Board of Directors of the St. Louis Public Schools, 1875, p. 39. St. Louis: Globe-Democrat Job Printing Co., 1876.

The College or University Course of Study

Dr. Harris had very definite ideas of what the colleges should teach and he felt not at all presumptuous as a public school administrator expounding on the various aspects of higher education. He looked upon the college as a continuation of the American common school. He was constantly concerned with the problem of college entrance requirements, particularly as they applied to public high school graduates and to the recognition of "modern subjects" in the high school as preparatory subjects. In 1874, in one of his earliest statements concerning college

work, he suggested a modification of the college course of study--that the required course of the first two years of college should be a continuation of advanced instruction in the five areas of knowledge pursued in the lower schools and then to allow students more of a choice of subjects in the final two years.¹

General Course of Study--College²

Topics Relating to Nature:

Inorganic--Analytical geometry, spherical geometry, differential and integral calculus, physics, chemistry, astronomy (etc., elective).

Organic or Cyclic--Anatomy and physiology, botany, zoology, meteorology, geology, ethnology (etc., elective).

Topics Relating to Man: or "The Humanities":

Theoretical (Intellect)--Latin, Greek, French or German, comparative philology, logic, history of philosophy, Plato or Aristotle, Kant or Hegel.

Practical (Will)--Philosophy of history, political economy and sociology, civil and common law, constitutional history, natural theology and philosophy of religion.

Aesthetical (Feeling-Phantasy)--Philosophy of art, history of literature, rhetoric, the great masters compared in some of their greatest works; Homer, Sophocles, Dante, Shakespeare, Goethe, Phidias, Praxiteles, Skopas, Michael Angelo, Raphael, Mozart, Beethoven, etc.

In 1882 the National Council of Education appointed a Committee on Chairs of Pedagogics in Colleges and Universities with Dr. Harris as chairman. Dr. Harris reported for the committee that the institutions of higher learning were providing most of the teachers in the secondary schools (and the professors in higher education) without adequate professional training and "without a philosophical survey of the science and art of education."³ The committee suggested that in the last two years of each college course a few weeks be devoted to the problems of teaching. The colleges were commended for the movement to establish chairs of pedagogics and they stated their conviction that great benefits were likely to result:

First, in improved methods of instruction and discipline in higher education;

¹Nineteenth Annual Report, op. cit., p. 181.

²Ibid., p. 84.

³Harris, "Chairs of Pedagogics," Education, III (November, 1882), 153.

Secondly, in the more intelligent direction of common schools through the influence of professional men appointed on school committees; and

Thirdly, in a revision of the course of study that will make elementary and higher education two members correlated in one harmonious system.¹

Summary and Conclusions

The principles advocated by Dr. Harris for the formulation of courses of study at various levels were:

1. A course of study should be a systematic, orderly arrangement of subject matter with careful observance of scope and sequence;
2. The general course of studies for the elementary, secondary, and higher schools should develop concurrently the five substantial areas of learning which constitute the curriculum;
 - a. Each subject, whether disciplinary or informational, should be organized as an integral part of the whole body of cultural knowledge;
3. In deference to the age of the learner and to the psychological laws of learning the course of study in any given subject should provide for cyclical or recurring treatment of subject matter;
4. Vocational subjects should be included in the course of studies only as "informational" and supplementary courses at the terminus of the student's school career;
5. The general course of study at each level should recognize the importance of articulation with the level above or below it;
6. The high school theoretically should not provide a dual or multiple course of studies--all students should be required to pursue the same cultural course;
 - a. Optional courses of studies in the high school should be considered a concession to practical needs and inimical to social welfare;
 - b. Elective courses should not be available to students without adult council; they should only be approved when the symmetry of the student's course of study is preserved;
7. The normal school course of study should provide a

¹Ibid., p. 155.

review of common branches, professional courses, disciplinary courses, observation of methods, and actual experience in teaching;

8. The college course of study should include professional training in education;

9. Colleges should require all students to pursue the same courses during the first two years.

CHAPTER VI

GRADATION AND CLASSIFICATION OF PUPILS

The movement toward inclusion of all children in the American common school created the problem of caring for larger and larger groups of children in an efficient manner. The scientific analysis of the curriculum and the organization of systematic courses of study went hand-in-glove with the grouping and classification of pupil personnel. Indeed, to be historically accurate, the gradation movement in its origin preceded the scientific organization of the course of study but both were in a process of evolution during the active years of Dr. Harris' life. It should be noted also that gradation and re-classification of pupils tended to relate itself to the architectural design of the school building. Buildings designed for teaching by the Lancaster method, which had a considerable vogue for a number of years, usually required extensive remodelling before they could be adapted to graded school organization. Further than this, the establishment of separate schools for primary children and for grammar school children, particularly in the larger cities, was a common practice for several decades and created an unnecessary step in articulation in the lower schools.

The semantic problem.--One of the chief difficulties faced by educators during the latter half of the nineteenth century was of a semantic nature--there was no standard nomenclature for education. Especially was this true in regard to the various aspects of administration. Professional administrators were still comparatively few in 1875 and there was no complete agreement among them as to their functions and responsibilities. Dr. Harris was made very conscious of this lack of a common terminology during the year following the release of his historical Nineteenth Annual Report for the St. Louis Board of Education. The theory of grading and classification which he set forth was discussed pro and con by the leading educators of the country. In the Report of the following year (1874) he states:

I am aware of the difficulty of making any statements regarding schools, without the probability of being misunderstood even by those well versed in educational affairs. When we undertake to describe a system or method we assume a certain status of things as existing; probably we take for granted, that the reader or listener has in mind the organization of the schools in which we are working. If the reader or listener happens to be acquainted with a radically different system only, his attempt to construe our words results in ludicrous misconceptions. Few people have any idea of the diversity that really exists in our public educational systems in the United States. Not to speak of the difference of public school methods from those of private or parochial schools, one may find variety enough within the public schools to explain how such misunderstandings arise. It is not sufficient to state a system in words which have become technical in a particular locality. The reader of a different locality will read such words attentively, but will put his own construction upon them.¹

Shortly after this experience Dr. Harris started a campaign in the circles of the National Educational Association for the refinement of the technical terminology used in education. The outcome of his campaign in this area is described in later chapters.

The Rural School

It was taken for granted that the curriculum of the rural school should be largely the same as that for village or city schools because the purpose of public education in America was the same for all children. The course of studies required differential treatment, however, because classification and gradation was limited in proportion to the number of children enrolled. The problem of the rural school was one which gave Dr. Harris considerable concern not only after he became United States Commissioner of Education but also during the years previous, as he contemplated the modifications and changes creeping into school organization and methods. As an advocate of larger, more efficient school units he recognized the practical necessity for the existence of small, isolated rural schools in innumerable instances. For these schools, with their five or ten minute recitations, there was little hope of improved classification of pupils or of adequate treatment of subject-matter. In fact, he pointed out that professionally trained teachers going into these

¹ Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools, 1874, pp. 135-36. St. Louis: Democrat Lithographing and Printing Co., 1875.

schools did more harm than good when they attempted gross classification of the few pupils in them.¹

In the report of the National Educational Association Committee of Twelve on Rural Education, of which Dr. Harris was chairman, he elaborated on the "evil results that come from the attempt to remedy the defects of the rural school by forcing on it the system of classification found in cities" and he recommended that the State normal schools which train rural teachers should instigate a special study of the uses and dangers of grading and classifying pupils as applied to various sizes of rural schools. The remedies which this committee recommended had little to do with the internal improvement of the rural school; they were largely concerned with external means of mitigating the evils of the small school. The recommendations were:

1. Transportation of pupils to central schools.
2. Improvement of roads.
3. Special appropriations for small rural schools (provided that such appropriations do not tend to prolong the existence of schools which should be consolidated).
4. Concentration of the higher grades of pupils.
5. School exercises at the town or county centers.
6. The proper use of competitive examinations.
7. The promotion of home reading.
8. Reviewing studies.
9. School extension-study by correspondence.²

Three years earlier he had stated his belief that no classification or gradation could be attempted in the small rural school most of whose pupils never get beyond the rudiments of reading, writing, and arithmetic. The only solution he could see at any time for the rural school problem was consolidation through the provision of transportation to union or centralized schools.³

Gradation of Students

The object of segregating students by grades was to improve instruction and to economize the use of teacher time by increasing the class size and reducing the number of classes for the

¹Report of the Commissioner of Education for the Year 1896-97, I, 876. Washington: Government Printing Office, 1898.

²Ibid., pp. 881 ff.

³Report of the Commissioner of Education for the Year 1893-94, I, xix. Washington: Government Printing Office, 1896.

teacher to meet. For some time there was confusion in the use of the terms "grade" and "grading." This confusion was pointed out by Dr. Harris in the Report of the Committee of Twelve on Rural Education. The grade in school should refer to the part of the course of study covered during a year by the average student as, for instance, the third grade refers to that section of the course of study which the average pupil is expected to cover during his third year of school. Thus gradation of pupils is always tied to the projected course of study.¹

The logical development of this concept was the adoption of an annual "grading" or promotion system and this occurred rather generally. The result was that, in these instances, the graded school became what Dr. Harris called a "Procrustian bed," geared to the calendar instead of to the ability of the child. He took violent exception to the use of the graded system as a basis for annual promotions. As a simple administrative device he recognized its efficacy but he was not willing to sacrifice the human spirit to mere mechanics. From the administrative standpoint the annual grade system would give the appearance of order and simplicity, but he saw that beneath the surface there were pupils who could not stand that pace and others as well who could take the course at a more rapid rate. His theory of the classification of pupils was to have classes divided according to quarters of a year's work. These classes would not be separated by an interval of a year in their work but by irregular intervals varying from six weeks to twenty.²

The advantages of Dr. Harris' scheme for classification he enumerated as: (1) reclassification may be easily managed; (2) pupils who are unusually bright or mature may be promoted to the class above, or form a new section with the slower pupils of the next higher section who need to review their work; and, (3) the poorer student may be dropped into the next lower class without losing more than ten, or twenty at the most, weeks in his standing.³

¹Report of the Commissioner of Education for the Year 1896-97, op. cit., I, 880-81.

²Twenty-first Annual Report of the Board of Directors of the St. Louis Public Schools, 1875, pp. 28 ff. St. Louis: Democrat Job Printing Co., 1876.

³Ibid.

The number actually changed from class to class was usually small and he declared the disturbance was slight compared with the advantages gained by the teacher who was thus relieved of the need for prodding the laggards with drilling and cramming to keep up with the class. Under the annual-promotion, or annual grade scheme the teacher would have been obliged to spend most of her time on the slow learners while the fast learners were losing proportionately--spending her energy in a vain effort to hold together the extremes in her class, becoming wider day by day, until worn out at the end of the year she becomes cross and petulant and sinks "continually into the abyss of drill-machine pedagogy."¹

Within Dr. Harris' scheme of gradation each teacher was assigned two classes; no class was formed with less than twenty-five or thirty pupils; no beginning class (first grade) was formed unless there was a second class above it within two quarters work of the beginning group.² The system was so arranged that a class could enter the work of a higher grade whenever it was ready--without waiting for the opening of a new term of school. "The whole mass is kept in a fluid state, so that the growth of individuals is not retarded by the necessities of classification."³

If then we suppose that our village "graded school" is organized so as to give each teacher a room with two classes, the class intervals will be about as follows: eight rooms devoted to grammar school work (the second four years' course for the district schools), and four hundred pupils in attendance; of these pupils one class would be in the eighth or last year of the course--30 pupils; three classes in the seventh year, the advanced class one-half year behind the highest class in school, the second and third classes respectively in the first and second quarters of the seventh year's course--70 pupils; four classes in the sixth year's work, one in each quarter's work of the course--110 pupils; seven classes in the fifth year's work, the class intervals being from five to ten weeks--190 pupils.

The following scheme would indicate the rooms, classes, and grade of advancement of the pupils in this "graded school":

¹Ibid.

²Official Proceedings, Board of Public Schools, St. Louis, I (July 9, 1872), 182.

³Ibid., p. 167.

1st class--Course of Study				2d class--Course of Study			
Room	Pupils	Year	Quarter	Pupils	Year	Quarter	
I.....	30.....	VIII.....	2d				
II.....	20.....	VII.....	3d	25.....	VII.....	2d	
III.....	25.....	VII.....	1st	25.....	VI.....	4th	
IV.....	25.....	VI.....	3d	30.....	VI.....	2d	
V.....	30.....	VI.....	1st	25.....	V.....	4th	
VI.....	25.....	V.....	3d	30.....	V.....	3d	
VII.....	25.....	V.....	2d	30.....	V.....	2d	¹
VIII.....	25.....	V.....	1st	30.....	V.....	1st	

Dr. Harris was fully in accord with grading the course of study but he fought a losing battle for forty years against tying the course of study to the calendar in the form of annual or even semiannual promotions with corresponding classes a year or a semester apart. He recognized only one disadvantage to the scheme he favored, the necessity of changing teachers frequently. To this he replied,

Is it desirable to keep a pupil back in his studies simply in order that he may recite for a longer time to the same teacher? Every superintendent knows that a change of teachers brings the pupil in contact with a new individuality, prevents the danger of warping the development of character in the pupil, and is desirable oftener than once a year in the lower grades, and at least once a year in the higher grades--where the teachers are maturer and more highly cultured--until the pupil reaches the² high school, where he recites daily to three or more teachers.

In his eleventh report as the United States Commissioner of Education, in 1899, Dr. Harris devoted an entire chapter to a re-statement of his ideas on the "short-interval system" of promotion and classification³ but his campaign was destined for failure--the simplicity and smoothness of the annual gradation plan had won the approval of efficiency-minded school administrators generally throughout the land.

¹Twentieth Annual Report, op. cit., pp. 141-42.

²Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1873, pp. 28-29. St. Louis: Democrat Lithographing and Printing Company, 1874.

³Report of the Commissioner of Education for the Year 1898-99, I, 303-56. Washington: Government Printing Office, 1900.

The Use of Examinations

The time-honored method of determining a pupil's qualifications is the administration of written examinations. The written examination was readily adapted for use with the graded course of study and was generally adopted to determine pupil placement. In systems using the annual or semiannual promotion plan, examinations were relied upon to determine which pupils should be retained. This practice was abhorrent to Dr. Harris. "A set time for examination and promotion is injurious, just in the ratio of its infrequency. Annual examinations for promotions and the discontinuance of promotions at other times, is an extremely pernicious system. . . ."¹

It was Dr. Harris' conviction that examinations generally should be tied to the quarter rather than to the year. He believed in much written work in the school but that, as a rule, it should not take the form of competitive examinations--that it should be limited chiefly to review work of the pupil.²

The use of written examinations brought up the question of what should be considered a passing grade (or per cent, in the usual method of marking papers). In some cities, said Dr. Harris, the standard is fixed at from 70 to 90 per cent of correct answers. In St. Louis 60 per cent was considered a passing grade because Dr. Harris felt that the requirement of a high per cent inevitably led teachers to cramming and special drill on technical points with a corresponding restriction of the breadth and scope of instruction. He further pointed out that much depended on the character of questions used in the examinations--that questions should test the thinking power of pupils rather than their memory of details--that when questions tested thinking power of pupils a passing mark of 60 per cent was quite high enough.³

Even in Dr. Harris' own system eighth grade graduates

¹Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, pp. 81-82. St. Louis: Democrat Lithographing and Printing Co., 1873.

²Report of the Commissioner of Education for the Year 1896-97, op. cit., I, 881.

³Eighteenth Annual Report, op. cit., pp. 51-52.

were expected to qualify for the high school by means of entrance examinations. There was no automatic admission to high school by virtue of an eighth grade certificate. Also, it was taken for granted that entrance to college could be gained only by examination--the acknowledgment of "credits" representing completion of specified high school courses was not yet an accepted practice. The examination was--and remained for many years--a barrier to closer articulation between the three levels of schools: elementary, secondary, and higher education. In spite of Dr. Harris' evident concern over a closer "interrelation of the various orders of schools"¹ at no time did he suggest a change from the examination method of qualifying for the higher school. On the contrary he looked upon the entrance examination of the higher institution as having a salutary effect on the lower school.

Summary and Conclusions

In regard to grading and classifying pupils Dr. Harris advocated the observance of these principles:

1. The gradation of pupils should evolve naturally by logical steps, graduated segments, of the course of study, irrespective of the calendar;
2. School units should be large enough that there will be at least two, and preferably more, sections for each grade of school;
 - a. Precise gradation and classification should not be attempted in small rural schools;
3. The course of study may be graduated into major units covering a year's work but students should be classified into groups by quarters of a year's work;
4. Re-classification should be possible for a given student, or small group, at any time--it should not be necessary to wait until the end of the year;
 - a. A section or class should be allowed to finish the work of a given grade and start into the next higher grade at any time during the school year; after summer vacation such a group would continue

¹Wm. T. Harris, "Organization and Supervision of Schools," American Journal of Education, X (May, 1877), 6.

its work wherever it stopped with the closing of school;

5. The use of annual examinations for gradation of pupils should not be practiced; examinations for purposes of classification should concern themselves with shorter units of work;

6. Examinations should be used to classify students as qualified to enter high school and college.

CHAPTER VII

INSTRUCTION AND CLASS MANAGEMENT

The chief function of educational administration is to facilitate the instruction of children. Dr. Harris recognized this in both principle and practice although shortly after becoming superintendent in St. Louis he noted that the pressure of business matters and routine office work tended to absorb too much of his time.¹ It should be pointed out that the scientific study of education was still in embryo form during the period Dr. Harris was engaged in active administrative work. His concepts of teaching and of the learning process, therefore, were the result of his keen observation, his interpretation of Hegelian philosophy, and his belief in the ultimate achievement of a more perfect society through the development of individual citizens with moral integrity and a desire for continual intellectual growth. Empirical psychology was not a factor in the early formation of Dr. Harris' ideas regarding instruction and pupil management although he was one of the first to recognize the promise of G. Stanley Hall's "child-study" movement. To some extent it might be said that Dr. Harris was in attendance at the birth of the scientific study of education in America and was an advocate of the movement but his chief contribution was in other areas.

To Dr. Harris must be given some of the credit for causing a questioning of routine; conventional teaching; the arousing of dissatisfaction with factual, memoriter recitations; and for the encouragement of more vital, growth-inducing procedures in the classroom during the period following 1867.

Interpretation of the Learning Process

Maturation.--In the absence of more exact means of evaluating human development, observation and common sense indicated

¹Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1869, pp. 132-33. St. Louis: Missouri Democrat and Job Printing House, 1870.

to Dr. Harris that teaching had to be geared to the age and maturity of the child. Adaptation was necessary in three areas: in the materials of instruction, in the methods of instruction, and in the objectives or outcomes to be achieved. In discussing the value of kindergarten, in itself a drastic adaptation of schooling to childhood needs, Dr. Harris pointed out, "School discipline is found to be far more potent when applied at the age of five than at the age of eight years."¹

When some criticism developed in 1872 over the matter of excessive study in school Dr. Harris replied that the administration was aware of the problem and had taken steps to "make changes according to the physical capacity of children." He expressed himself further that children in this country were becoming more and more nervous due to the tempo of life in the United States and that schools "are compelled to relieve children of excessive tax upon the brain by shortening the hours of study."² He observed also that parents tended to impose music lessons, and other private instruction, upon the children which further exhausted them.

Recognition of the maturation factor is most noticeable in connection with adaptation of subject matter to the age level of the child, which has been discussed in Chapter V, and with the stated objectives of instruction at various levels.

We do not look so much to the gain in intellectual possessions as to the training of the will into correct habits, during the years previous to the seventh.³

In comparing elementary and secondary instruction Dr. Harris made a point of the necessarily superficial character of elementary education which deals chiefly with "mechanical dexterity and mechanical memory," the skills of reading, writing, and arithmetic, and the technical terms and distinctions used in geography, history, grammar, and science. In contrast, secondary instruction deals with relations, with the dependencies of things upon one an-

¹Wm. T. Harris, "The Kindergarten," American Journal of Education, X (July, 1877), 8.

²Seventh Annual Report of the Superintendent of Public Schools of the State of Missouri, 1872, p. 87. Jefferson City: Regan and Carter, 1873.

³Harris, "The Kindergarten," op. cit.

other, with processes, with action and reaction. Further than this, higher education deals with the unity of all knowledge, with philosophy.¹

At the risk of over-simplification it is possible to summarize the chief outcomes to be desired: (1) In the primary school, those dealing with habits and the will; (2) in the upper elementary school, a mastery of the mechanical tools of communication and computation; (3) in the secondary school, development of higher mental processes dealing with relationships and permutations; and, (5) in higher education, a knowledge of philosophy. At each level the objective is based upon the maturity of the learner.

Recognition of the capacity factor.--In 1879 Dr. Harris reported to his Board, "This question of natural limitations to the intellect is the most important one that the educator meets with."² On another occasion, but during the same year, he stated that

The subjective limit of education (on the negative side) is to be found in the individuality of the child--the limit to his natural capacity.

The objective limit to education lies in the amount of time that the person may devote to his training. It, therefore, depends largely upon wealth, or other fortunate circumstances.

The absolute limit of education is the positive limit beyond which the youth passes into freedom from the school, as a necessary instrumentality for further culture.³

The chief difficulty in the way of higher intellectual education for many people, according to Dr. Harris, lies in their facile belief that their native powers are limited.

While no one concludes that he is unable to walk a mile because he can not go a mile at one step, yet there are many people who will refuse to try to understand what they cannot see clearly at first glance. . . . The science of pedagogy is successful in proportion as it discovers the general means of meeting and overcoming the special kinds of distrust in

¹Harris, "Our Educational System," The Chautauquan, XV (April, 1892), 19.

²Official Proceedings, Board of Public Schools, St. Louis, III (May 13, 1879), 230.

³Harris, "The Science of Education," The Journal of Speculative Philosophy, XIII (April, 1879), 214.

his ability on the part of the pupil and in creating an interest for him in his studies.¹

Motivation.--It is quite evident from the foregoing discussion that Dr. Harris placed more faith in motivation and zeal than he did in native ability; he believed that a stated or felt "lack of ability" was usually a case of inertia on the part of the individual.

Teaching must be inspired. Teachers must not treat their jobs as treadmills, keeping school or allowing the school to keep them, working at it in the manner of a half-learned trade. Two types of teaching are particularly to be avoided as deadly to pupil motivation: first, that which follows the textbook, line for line and word for word, and, second, dogmatism which crushes all originality on the part of the pupil. Such teachers never command the respect of their pupils and tend to compensate for that by exciting their fear.² On the contrary, every legitimate device should be used to excite pupil interest. An example is the use of object lessons where analysis brings out relations and implications. "Pupils" should be transformed into "students" absorbed in the spell of discovering new and thrilling experiences from the printed page and in the scintillating discussion which is provoked by the author, the teacher, and the other students.³

Twenty-four years later, in 1895, Dr. Harris commented, "The general trend of school reforms may be characterized as in the direction of securing the interest of the pupil. All the new devices have in view the awakening of the pupil's inner spring of action. He is to be interested and made to act along lines of rational culture through his own impulse."⁴ This trend he attributed largely to the influence of Froebel's kindergarten movement, and Colonel Parker's Quincy School Experiment and his Cook County Normal School. While recognizing the benefits that could accrue from

¹Official Proceedings, Board of Public Schools, St. Louis, III (May 13, 1879), 230.

²Harris, "How to Study and How to Teach," Journal of Education, III (January, 1871), 7.

³Ibid.

⁴Harris, "Elementary Education," The North American Review, CLX (May, 1895), 541.

motivation based on feeling and desires, Dr. Harris was constrained to indicate a danger in slighting "will-culture" and allowing an exaggeration of "impulse and inclination." He deplored the tendency of teachers to rely on novelties to create interest at any price. It seemed to be his opinion that the pendulum had swung too far to the left.

Habit formation.--As Dr. Harris conceived it, education deals almost altogether with the formation of habits. Its aim is largely to make certain lines of activity or patterns of thought into second nature for the pupil. The individual is not truly educated until his will is strong enough to break old habits as well as to form new ones. No individual is free until he is thus the master of himself.¹

Development of higher mental processes.--Exclusive reliance on memory and the "reciting of lessons" is evidence of the poorest type of teaching. Parrot-like responses result in little mental growth, if any.² The type of instruction most to be desired is that which encourages and stimulates "critical observation, original investigation, and comparison of authorities."³ The development of system and organization in dealing with ideas and objects is the sine qua non of education and teaches the pupil the "great lesson of combination with his fellowmen."⁴

Limitations to thoroughness.--Emphasis on thoroughness in instruction has its pit-falls. Dr. Harris originated a term, "arrested development," to describe the condition where a child has learned all he should be expected to get from a given lesson or learning experience but where the teacher, with a mistaken idea of thoroughness, puts the child through the process again and again. It is necessary to ascertain how much time and study is to be given to a learning experience and not to go beyond that point. Where instruction fails to develop the child, induration and hardening into habit begins and purposeful motivation has

¹Harris, "The Science of Education," op. cit., p. 212.

²Harris, "How to Study and How to Teach," op. cit., p. 7.

³Harris, "The Basis of Education as a Science," The Western, n.s., III (May, 1877), 278.

⁴Ibid.

ceased to exist. It was particularly on this problem that Dr. Harris looked to "child study" for a solution. He hoped to see the child study movement make a project of the matter of "arrested development" to discover how far the teacher could profitably push thoroughness toward the borders of mechanical perfection.¹

Disciplinary vs. informative studies.--A careful distinction was made between "disciplinary" studies and "information" studies. Disciplinary studies were those wherein the student was supposed to prepare his lessons carefully by his own work. Information studies were those wherein the student did not necessarily prepare daily lessons but where he listened to an oral presentation, watched experiments performed, asked questions, and perhaps attempted a restatement of the new ideas he had obtained. Information studies were of the nature of exploratory courses. An example was science at the elementary level. This same subject would become a disciplinary study at the secondary level.²

Interpretation of the Learning Environment

The teacher's attitude.--Dr. Harris considered the teacher's demeanor and personality as important as her knowledge of methods and subject-matter. The teacher's attitude governs the effectiveness of all the classroom procedures.

There should be as a pervading influence in the classroom an air of sympathy on the part of the teacher with each and every one of his pupils. The good teacher knows enough of the lives of each and every one of his pupils to understand the struggles which they are making or which they are failing to make. . . . Nothing appeals so much to the child's better nature as the evidence that his teacher recognizes his aims and purposes in their higher spirit and best intentions, and that his acts are interpreted in the same spirit. This holds the pupil to his ideal, and does not let him degenerate into the temper of mischief-making or evil-doing.³

¹Harris, "The Study of Arrested Development in Children as Produced by Injudicious School Methods," Education, XX (April, 1900), 453-66.

²Harris, "Our Public School System," The Chautauquan, VIII (February, 1888), 279.

³Harris, "The Editor's Preface," J. M. Greenwood, Principles of Education Practically Applied, p. xvi, International Education Series. New York: D. Appleton and Co., 1901.

The good teacher will neither encourage nor allow parrot-like responses. Her attempt will be to create a laboratory environment. The recitation is consumed in analyzing and proving the lesson so as to draw out all its relations and implications.¹

The gregarious situation.--The school-room becomes a better place of learning when it is a sort of "miniature world" which recognizes the value of social intercourse.² One of the greatest values of the class recitations and group discussion is the greatly stimulating effect on growing thought which arises from the fact that the pupil hears the thought of the lesson expressed in various ways by different pupils. Each pupil contributes a thought arising from his experience and point of view; the general result is a much more complete understanding on the part of the individual than would ordinarily obtain from an individual or small-group learning situation.³

In a group situation social virtues are better realized. Each pupil learns to conform his behavior to the general standard. Since behavior and scholarship were recognized by Dr. Harris as "the pillars on which public school education rests" he placed great emphasis on the social values to be obtained by the individual in a group where moral training was omni-present. "The education of youth by means of private tutors essentially lacks the side of moral education such as we find in the good school."⁴ Conversely, "the class in the hands of a good teacher is a potent instrument for reaching all sides of the pupil's observation and reflection."⁵

Class size.--The size of classes, or number of pupils which may be assigned to a teacher, depends considerably upon the

¹Harris, "How to Study and How to Teach," op. cit., p. 7.

²Harris, "Moral Education," American Journal of Education, VIII (November, 1875), 4.

³Harris, "Textbooks and Their Uses," Addresses and Proceedings of the National Educational Association, 1880, p. 107. Salem, Ohio: Allan K. Tatem, 1880.

⁴Harris, "Moral Education," op. cit., p. 5.

⁵Harris, "Report of the Subcommittee on Instruction and Discipline of the Committee of Twelve on Rural Schools," Report of the Commissioner of Education, 1896-97, p. 875. Washington: Government Printing Office, 1898.

efficiency of classification. Dr. Harris believed that from forty to sixty pupils should be assigned to each elementary room-teacher. Ideally, these would be homogeneous from the standpoint of scholastic progress and, for recitation purposes, would be taught in two or more sections.¹ In outlining his ideas for improving school organization in 1873, Dr. Harris arrived at the conclusion that pupils should be brought together into large schools, graded carefully, and should be well supervised by principals. Under these conditions "a single teacher can control and instruct from sixty to eighty children as well as forty have been managed before."² It should be stated, however, that Dr. Harris' real objective at the time these views were stated was economy (during the depression of 1873) rather than improvement of instruction (although he stoutly maintained that the same high standards of instruction could be realized in large classes through better organization, classification, and supervision). The result was that when better times arrived class sizes were not reduced appreciably. This was particularly true in the primary grades.

It was an administrative policy to assign fewer pupils to each teacher in the intermediate and grammar schools because of the wider spread of instruction at these levels.

The number of recitations in the primary department will average three-fourths of the number to each class in the grammar department. Hence it is that the number of pupils to each teacher in the grammar department must be considerably less--two-thirds of the number assigned to each teacher in the primary department. The teacher in the primary department can manage and instruct 72 pupils with greater efficiency than the teacher of the grammar department can manage 48 pupils.

According to our St. Louis system the teachers in the grammar department (5th, 6th, 7th, and 8th years of the pupil's course at school) have two classes each and one is engaged in study while the other recites. In the primary department three and even four small classes are formed by the teacher of each room.³

¹Harris, "The Division of School Funds for Religious Purposes," The Atlantic Monthly, XXXVIII (August, 1876), 175.

²Official Proceedings, Board of Public Schools, St. Louis, I (December 9, 1873), 298.

³Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools, p. 139. St. Louis: Democrat Lithographing and Printing Co., 1875.

Hygienic conditions in the classroom.--At a time when little cognizance was taken generally of the importance of hygienic conditions in the classroom, Dr. Harris was aware of the importance of the physical surroundings as having a direct bearing on the mental and physical welfare of the child. He recognized that much of the responsibility for hygienic classrooms rested with the superintendent and the Board of Directors who designed and equipped the buildings. In many instances, however, the teacher could adapt and adjust the equipment and conveniences in her room. At all times she was expected to be alert to the physical needs of her pupils. In the Annual Report of 1869 to the citizens of St. Louis Dr. Harris said, "parents will understand how much care is demanded to prevent our schools from sowing seeds of disease in the delicate organisms of rapidly growing children."¹ In the same report he dwelt upon the responsibility of the school for myopia induced by improper or insufficient light; for indigestion, headache, nervous disorders, and consumption due to poor ventilation, improperly heated air without moisture, and sudden changes of temperature; and for curvature of the spine caused by sitting too long on school furniture of improper size or shape.

Recognition of the physical needs of growing children prompted the scheduling of recesses at regular intervals and the requirement that recitations (wherein the pupil was required to stand) be alternated with intervals of study. Teachers were specifically directed to vary the tasks of children during each session so that physical injury could not result from schoolroom confinement.²

Methods of Instruction

General concept of methods.--In Dr. Harris' opinion, the special study of methods and devices is the province of the normal school. They are the means by which the spirit of the school is implemented. Methods are not an end in themselves but a means to an end. When the work of the school becomes mechanical, the spirit has departed. All good teachers recognize the need for continual modification of methods.³

¹Fifteenth Annual Report, op. cit., pp. 14-15. ²Ibid.

³Harris, "The Editor's Preface," op. cit., p. vii.

There is a perennial need of newly invented devices. Each device has a tendency to become mechanical, no matter how spiritual or suggestive of thought it was at the beginning. . . . The teacher should be a continual source of new and more effective devices. He sees clearly that each device soon loses its life-giving efficacy. The efficient teacher, therefore, is not the person who merely knows the highest educational principles, but the one who can use these to give life to practical methods, and who can measure such practical methods or devices by principles and introduce modifications at the right time, so as to accommodate them to the increasing power gained by the pupil.¹

Teachers should not be required to conform to any set pattern of methods or procedures. Rather, there should be an agreement upon principles and the details of working out the principles should be left to the teacher. Two teachers may use entirely different methods and yet both be right. "The line of vitality leads us to principles. What we want to do is to get the profession alive and vitalized by a complete appreciation of essential principle. If that be done, the actual detail need not concern us."²

To cover the course of study rapidly is not a legitimate goal. Such progress is a delusion. True progress requires comprehension and mastery of essential information. . . The good teacher looks to the quality of the knowledge and the personal growth of the child.³

All of the methods of school, whether they pertain to instruction or discipline, and all the devices of system and organization should be designed to socialize the child--to enable him to get along with others.⁴

In all his discussion of methods in the classroom, Dr. Harris presupposed the existence of a graded system. He looked upon the ungraded school as archaic and quite inadequate except in the most remote rural regions where sparcity of popu-

¹Ibid.

²Journal of Proceedings and Addresses of the Thirty-sixth Annual Meeting of the National Educational Association, p. 216. Chicago: University of Chicago Press, 1897.

³Harris, "Excessive Helps in Education," Education, IX (December, 1888), 216.

⁴Harris, "The Basis of Education as a Science," op. cit., p. 278.

lation made gradation impractical.

Methods in the kindergarten.--Miss Susan Blow and Dr. Harris collaborated in working out the pattern of instruction in the first public supported kindergarten in St. Louis. Since Miss Blow was a disciple of Froebel it is natural that Froebel's devices were largely followed in the schools she supervised. However, the mechanics of handling large groups while still maintaining a "family-like," informal atmosphere gave the superintendent much concern. It was necessary to have large classes in order to keep down the per pupil cost. Otherwise the kindergarten could not be continued.

The first kindergartens were operated on a modified Lancasterian plan. This plan utilized a large room with three or more large tables, each accommodating sixteen to twenty-four pupils. An experienced teacher took charge of one table and supervised inexperienced assistant-teachers, one at each of the other tables. This arrangement was found unsatisfactory because the large tables obstructed the play space needed for the room.¹ For the Centennial Exhibition Dr. Harris and Miss Blow developed the idea of using small tables, seating two pupils at each. These proved advantageous and were generally adopted in the St. Louis kindergartens. When play space was needed the tables were temporarily placed around the wall; when large table space was needed several small tables were pushed together. All equipment was small enough that the children could move it themselves. The system of classification within the kindergarten and the use of apprentice assistants was continued without change.²

Beginning in the fall of 1874 the policy was followed of providing a room large enough for fifty pupils at a time, comprising three classes, and requiring three teachers. Each kindergarten room accommodated two sets of pupils, one group from nine to twelve in the morning and the other group from one to four in the afternoon.³

The learning activities in the kindergarten consisted of "gifts," "occupations," and games. The "occupations" consisted of exercises in cutting, folding and weaving paper, embroidering

¹Harris, "The Kindergarten," *op. cit.*, p. 8. ²*Ibid.*

³Official Proceedings Board of Public Schools, St. Louis, I (April 14, 1874), 324.

with worsted, and modeling with clay. The "gifts" were implemented with wooden cubes divided into sets of eight with twenty-seven smaller cubes. These were used for building blocks. With pointed sticks, soaked peas for joining, and building blocks, children were encouraged to make representations of houses, men, animals, furniture, and so forth. The games were performed by all the children in the room in concert, with all of the teachers assisting. Froebel's Mutter und Kose Lieder was the manual for the play activities.¹

The principal objects aimed at in the kindergarten course of instruction are--(1) Skill in the recognition and production of forms. The hand and the eye are disciplined in the most effective manner by the several occupations of cutting out shapes in paper, weaving patterns in different colors, perforating cardboard and working pictures in colored threads, construction of geometrical and other figures by means of sticks and softened peas, modelling of designs in clay, ruling paper and drawing symmetrical figures. (2) The theoretical knowledge of form and number, is trained by the use of blocks representing the elementary geometrical solids; counting, the elementary rules of arithmetic, the use of fractions, are taught by these blocks. (3) Besides this the child is taught valuable lessons in manners. He eats his lunch at the table spread in a proper manner, and learns neatness, cleanliness and the conventional etiquette that marks polite behavior at meals. (4) In the games which are played, the imagination is exercised in a lively manner, and the healthful training of the body is secured. The session of the kindergarten usually lasts for about three hours per day, and may continue for one, two, or three years according to the age of the pupil upon entrance. . . . The kindergarten restrains, though in the gentlest manner possible. It furnishes a training nearest approaching that of the family; and is the proper transition from family to school.²

Methods in the elementary school.--The method of instruction in the elementary school was primarily that of textbook study and recitation. Dr. Harris' chief concern in this connection was to prevent instruction from becoming routine to the extent of being mechanical and uninspired.

Because the subject matter in the first three grades consisted primarily of reading, writing, and arithmetic, the tool subjects, fewer recitations were scheduled per day in those grades.

¹Harris, "Education in the United States," United States of America, II, 358. Edited by N. S. Shaler. New York: D. Appleton and Company, 1897.

²Harris, "A Course of Study from Primary School to University," The Western, n.s., II (September, 1876), 521.

Also, the recitations of primary pupils were considerably shorter, two-thirds the length of those in the grammar school, due to the short span of attention of the younger child.¹

The primary teacher, with sixty to seventy pupils, was expected to form three or four classes within her room and teach reading, oral composition, oral arithmetic, and penmanship daily, with sixty minutes per week of natural science and hygiene combined. In the second grade oral geography was added.²

As the student progressed through the grades more subjects were added and the number of pupils per teacher was much reduced. The length of the recitation was increased in recognition of the lengthened span of attention of the older child.³

The recitation is as long as the attention of the pupil can be held without overstrain--twenty to twenty-five minutes in the lower grades and thirty to forty minutes in the highest classes of the grammar school. Time is given for review of the previous lesson, for investigation of the lesson for the day, for discussion of authorities, for illustrations, for hints as to methods of study. Each pupil prepares himself by study of the text-book, and in the recitation sees the subject through the perspective of the minds of fellow-pupils and teacher, thus widening his own narrow views of the subject by seeing what different aspects it takes on in the minds of his fellow pupils. He acquires critical alertness by this process and goes to his next lesson with his mind full of new inquiry and reflection, thus reinforcing his own power of attention by what he has learned from the whole class and the teacher. A good teacher can and does use the recitation as an instrumentality for reinforcing each individual mind by all the minds of the whole class.⁴

Methods in the secondary school.--No great distinction was made between methods in the elementary and the secondary school. Again the method was based largely on textbook study and recitation but with greater emphasis placed on critical analysis and original investigation. Whereas elementary instruction aims to give the pupil skills and rudimentary knowledge, secondary

¹Twentieth Annual Report, op. cit., pp. 139-40.

²Report of the Commissioner of Education for the Year 1893-94, I, 527. Washington: Government Printing Office, 1896.

³Twentieth Annual Report, op. cit., p. 139.

⁴Report of the Commissioner of Education for the Year 1895-96, I, xxii. Washington: Government Printing Office, 1897.

instruction "deals more with relations and grows bigger. It begins to consider the dependencies of things upon one another and to be interested in causes and processes."¹

The added ingredient at the secondary level was the provision of opportunity for the student to conduct original investigation requiring the use of laboratory, the microscope, or the "laborious historical research and sifting of authorities."²

The recitation.--Dr. Harris' concept of the recitation placed it far above the plane of the memoriter exercise which it tended to become in the ordinary classroom. The true idea of the recitation, according to Dr. Harris, develops in the pupil a method of investigation. It teaches him to verify everything by his own experience. It produces experiments, exhibits specimens and illustrations. It requires logical explanation in the student's own language and, for history, illustrations from present day life. The recitation brings out relationships between textual information and the present day life of the pupil and his community. The art of the recitation is to develop the power of reflection and comprehension to the point that visible experiments and illustrations are unnecessary.³

A careful distinction should be made between the requirements for ordinary students and precocious ones. It is necessary to be on guard against too much drill or excessive repetition of a learning process. A child's reaction to natural phenomena should not be drilled to the point that it becomes automatic. This tends to over-simplification of complex functions and the development of a closed mind. "The child that has been overtrained in arithmetic reacts apperceptively against his environment chiefly by noticing its numerical relations--he counts and adds; his other apperceptive reactions being feeble he neglects qualities and causal relations."⁴

¹Harris, "Our Educational System," op. cit., p. 19.

²Harris, "Methods of Discipline and Instruction," American Journal of Education, X (March, 1877), 6.

³Addresses and Journal of Proceedings of the National Educational Association, 1880, p. 107. Salem, Ohio: Allan K. Tatem, 1880.

⁴Harris, "The Study of Arrested Development in Children," op. cit., p. 457.

The teacher should criticise and call upon his pupils to criticise the defects in the statements made by each pupil, so that they shall acquire a habit of alertness in noticing inaccuracy as well as lack of exhaustiveness in definition, whether in oral statements or in the text book itself.

The lesson should in all cases be brought home to the pupil's own experience, and his own observation and reflection made to verify the statements of the books.

Every recitation should connect the lesson of today to the lessons already recited, and the questions awakened in today's lesson should be skilfully managed to arouse interest in the subject of to-morrow's lesson.

The good teacher always notes by the recitation of a pupil what are his habits of study, and the recitation is the place where bad habits are pointed out, and the true method of study shown and illustrated.¹

Textbooks versus oral instruction.--From the same schools of early New England and through the decades following, instruction in America has been peculiarly dependent upon textbooks. The schools of America have always been reading schools rather than listening schools after the European model.² Every school reformer, however, from Horace Mann down, had condemned and excoriated the American teacher's dependence on the printed page and held up as the true model the oral instruction of the German schools.³ One of the first great champions of the textbook as a teaching tool was Dr. Harris. With philosophic insight he observed the great social evolution of the nineteenth century and credited "this blind instinct which clings to the textbook in the school" to an inarticulate American ideal personified in citizens free from personal control and intent on individual self-help such as only the printed page of book, magazine, or newspaper could give.⁴

Not to pour in preconceived theories and fill up the mind of the pupil with ready made doctrines, but rather the training of the pupil in the method of mastering printed books, is our aim from the first day of schooling to the last. This shuts a door to the arbitrariness of teachers most effectually and makes of it the least account. Every step toward the

¹Official Proceedings, Board of Public Schools, St. Louis, I (October 19, 1871), 98.

²John Dale Russell and Charles H. Judd, The American Educational System, p. 197. Boston: Houghton Mifflin Company, 1940.

³Harris, "Education in the United States," op. cit.

⁴Ibid.

ability to master the printed book is a step toward freedom from and independence of living teachers. Thus our education is a giving of the conventionalities of a perpetual self-education.¹

While extolling the virtues of the textbook Dr. Harris was fully conscious of the evils which tended to accompany its use. "Its shortcomings," he said, "are found in carrying it out in practice; for cramming the words of the book and repeating them without explanation or independent illustration are as foreign to the idea of the American method as they are to the German oral method."² He conceded that the oral method is the liveliest and most inspiring but its defects are: (1) its liability to throw most of the work upon the teacher and too little upon the pupil when the object of the American school is to make the pupil work rather than the teacher; (2) the proneness of the teacher, in order to secure some work by the pupils themselves, to dictate lessons to children which result in monotonous and profitless pupil construction of a poor quality of manuscript-textbook. Also, with oral, teacher-presentation of information there can be no freedom of discussion by the students without discourtesy to the teacher.³

At a time when well-trained teachers were rarely to be found Dr. Harris considered the textbook the greatest ameliorating influence yet available. "If we are to be beset with poor teachers, the textbook renders the damage more endurable, while with good teachers the textbook is a means of the highest development of independent activity in the pupil."⁴

The defects of oral instruction, which allows arbitrariness and caprice to creep into the classroom, result in the necessity for detailed prescription from the superintendent's office to keep a semblance of logical and sensible instruction in the classroom.⁵

¹Harris, "Textbooks--Their Uses and Abuses," Journal of Education, II (November, 1869), 42.

²Harris, "Education in the United States," op. cit.

³Harris, "Methods of Discipline and Instruction," op. cit.

⁴Harris, "Textbooks--Their Uses and Abuses," op. cit.

⁵Harris, "Oral Instruction," Journal of Education, III (January, 1871), 9.

A commendable increase in the number of textbooks available was noted by Dr. Harris in 1871. His reaction was that a multiplicity of textbooks would change the mode of instruction more and more to the consultation of reference books and comparison of different views. The result of this evolutionary process would be to benefit the student as he gained more and more independence of mere external authority by reading, comparing, forming his own opinions, and doing his own thinking.¹

Also in 1871, Dr. Harris became aware of some of the abuses of the textbook method among his own teachers. He deplored the practice of some teachers who used "the textbook during the recitation as a source of information from which to draw a supply for their own use on the occasion, thus making up for their own lack of preparation." He reasoned that the teacher should know at least as much of the lesson as the pupil so why should the teacher have recourse to the textbook while the pupil is debarred from it? After presenting this argument to his Board of Directors he requested a regulation to be adopted prohibiting the teacher from using the textbook whenever the pupil was expected to recite without it. For the teacher he recommended the use of a syllabus of topics or questions to assist in the conduct of recitations. His recommendation was adopted and put into effect.²

There were areas in the course of study, however, where Dr. Harris subscribed to the oral method. For the teaching of what he called "information" studies he prescribed the oral method. This method was particularly required in the teaching of natural philosophy (science) in the elementary grades.³ His justification for oral instruction in this instance was the lack of adequate textual materials of instruction at this level and his own conviction that science information was a part of the reservoir of common knowledge which should be included in the elementary curriculum.

Dr. Harris looked upon textbook instruction as evidence of a truly American characteristic--"the preparation of a people

¹Ibid.

²Official Proceedings, Board of Public Schools, St. Louis, I (October 10, 1871), 98, and I (November 14, 1871), 106.

³Ibid.

for a newspaper civilization, an age wherein public opinion rules. . . . All people seeing clearly the same facts, reading the same commentaries presenting all phases of consideration, are able to arrive at harmonious conclusions."¹

'Textbook instruction' is the form of school instruction adopted by the deep instinct of modern society as the most direct and effective method of initiating the individual man into spiritual participation in the activity of his race. By it our system of instruction is the best enabled to secure what is substantial without sacrificing the formal.²

So convinced was Dr. Harris of the efficacy of the school textbook that he envisaged its universal use:

That textbooks are to become more and more the means of education, not merely in this country, but also in Europe, must be evident to one who watches the ever increasing development of individuality there as well as here. The emancipation of each man from the mere personal influence of another should lead to this. The ipse dixit avails less and less. . . . The printed page is the mighty Aladdin's lamp which gives to the meanest citizen the power to lay a spell on time and place. It is the book alone that is reliable for exhaustive information.³

Discipline and Pupil Control

General philosophy of pupil control.--The concept of discipline advocated by Dr. Harris in the public school may be traced directly to his ideas concerning a democratic society and his belief in the developmental possibilities of the individual. He used a more inclusive term, moral education, to describe the experiences which were to result in the obedience of individuals to social institutions--attitudes resulting from rational persuasion and the development of a personal will. Moral education should raise the individual gradually to a point where personal conviction replaces external authority completely. "In our society and government we aim to place as few safe-guards as possible around the individual from without, and therefore our system of education must make the character strong and self-determined

¹Harris, "Education in the United States," op. cit.

²Harris, "Text-books and Their Uses," op. cit.

³Harris, "Textbooks--Their Uses and Abuses," op. cit.

from within."¹

The evolution of self-discipline is conditioned by two factors in school government, "coercion and moral suasion; and the relative amount of each changes, from age to age, in the ratio that the patriarchial principles get eliminated from society."² The teacher may measure her success by the relative amount of external authority necessary to maintain order and attention.

The asperity of discipline in the school is a reflection of the social mores. The tendency in our American educational system until comparatively recent times has been to lay greater stress on discipline and moral education than upon intellectual instruction. After 1850 the sentiment of the community began to undergo a reaction of a political, social, moral, and religious nature in the direction of a more liberal and less ascetic social philosophy.³ The school reflected this change in the movement to discontinue the use of corporal punishment⁴ and in the more humanistic and sympathetic type of instruction which developed with the spread of the doctrines of Froebel and Pestalozzi.

The attributes of school discipline.--One of the pillars on which public education rests is behavior or deportment. Order and attention must be gained before intellectual training may be given. Dr. Harris defined a whole family of virtues which were to be taught to the pupil so thoroughly that they were to be fixed in his character. "The duty of being a well-behaved pupil is not a vague generality. It divides into specific, well-defined duties: (1) punctuality, (2) regularity, (3) silence, (4) truth, (5) justice, and (6) the highest virtue of all, kindness or love of mankind."⁵

¹Harris, "The Public School as an Institution of Civil Society and the State," Seventh Annual Report of the Superintendent of Public Schools of the State of Missouri, p. 78. Jefferson City: Regan and Carter, State Printers, 1873.

²Harris, "The District School System," Journal of Education, II (March, 1870), 121.

³Harris, "Why American Schools Lay Stress on Discipline," American Journal of Education, VII (September, 1894), 7.

⁴Official Proceedings, Board of Public Schools, St. Louis, I (December 10, 1872), 222.

⁵Harris, "Moral Education," op. cit., p. 4.

The character of Attendance is an important index to the MORAL TONE of the schools. Punctuality lies at the basis of the virtues as a kind of *sine qua non*. . . . On this groundwork of Punctuality, the public school teachers proceed to build up the moral superstructure, by cultivating habits of Self-Reliance and Industry; Obedience and Respect to superiors, Courtesy toward equals, and Kindness toward inferiors. These are the fundamental characteristics of a civilized demeanor. The 'sacred regard for the truth,' which is universally required, in our schools, is the complement to the virtues just named.¹

The teacher as a disciplinarian.--Lack of skill in pupil control on the part of the teacher usually arises from her own imperfect self-control, or from her lack of understanding of human nature.² Impatience on the part of the teacher encourages irritability of pupils and their parents.³

It was Dr. Harris' opinion that women, as a rule, are better disciplinarians than men, that they have a superior gift for securing discipline by mild means and "can hold pupils to their work and secure lady-like and gentlemanly behavior with what seems to be less expenditure of strength."⁴

The most propitious method of giving moral education is that of setting standards and requiring all to conform until habits are fixed. Not much conversion is achieved by lectures and discussions on morals and ethics.⁵ When the group accepts the standard set up and each individual becomes aware that his own actions have a direct bearing on the welfare of the group then a high standard of control has been secured.

It is the aim of our discipline to make pupils feel that they are elements of the school community; that their teachers are present to warn and guide, not to detect and punish. . . . Our aim is to make pupils aware of their responsibilities,

¹Fifteenth Annual Report, op. cit., p. 17.

²Harris, "The Early Withdrawal of Pupils from School: Its Causes and Remedies," Addresses and Journal of Proceedings of the National Educational Association, 1872, p. 264. Peoria, Ill.: N. C. Nason, Printer, 1873.

³Official Proceedings, Board of Public Schools, St. Louis, III (February 12, 1878), 15.

⁴Journal of Proceedings and Addresses of the National Educational Association, 1894, p. 482. St. Paul: Pioneer Press Co., 1895.

⁵Harris, "The Education of the Negro," The Atlantic Monthly, LXIX (June, 1892), 727.

and excite the desire of completely discharging them. . . . Only when the relationship within the school is similar to that in the world, can teachers contribute towards the attainment of those principles which lie at the foundation of any life truly valuable.¹

Parental responsibility for discipline.--The condition in the home has much to do with the behavior of the pupil at school. On several occasions Dr. Harris pointed out this inevitable relationship. In communities where children were allowed much liberty at home the school was forced to give up harsh measures of discipline also.² The most favored disciplinary measure of Dr. Harris was suspension from school. He favored this action because he could use it as a lever to get parents to share the responsibility for building up the child's "moral powers." When home life lacks stability, when parents are in a depressed or nervous condition, the increased irritability of the pupil requires the utmost patience and understanding on the part of the teacher. This problem became most acute in St. Louis during the depression of 1878 when the distress among the people was felt in the schoolroom in a very painful manner.³

Community and environmental factors affecting discipline.-- Closely related to home and parental influence is the impact of the community environment in relation to pupil attitudes and the tone of control in the school. Poverty, avarice of parents, over-demands of productive industry, and such conditioning influences, were classified by Dr. Harris as criminal negligence of parents which should be investigated by political economists and be made the subject of proper governmental legislation.⁴

One of Dr. Harris' early research studies concerned the relation between education and crime. He used his study to prove

¹Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1871, p. 65. St. Louis: Plate, Olshausen and Company, 1872.

²Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1870, pp. 23-24. St. Louis: Plate, Olshausen and Company, 1871.

³Official Proceedings, Board of Public Schools, St. Louis, III (February 12, 1878), 15.

⁴Harris, "The Early Withdrawal of Pupils from School," op. cit., p. 269.

that education improves morality and reduces crime.¹

The sense of honor is developed earlier and earlier in each succeeding generation. This necessitates adaptation of the school regimen. Honor is the feeling of the recognition of one's essentiality on the part of the community.²

Modes of punishment and correction.--Dr. Harris was a supporter of the movement to end harsh punishment in school. At the same time his idea of pupil control required the teacher to keep meticulous order and decorum in the classroom. "Strict government, but by the mildest means, is the injunction placed upon every teacher in the public schools."³

Punishment should be resorted to after other means have failed to secure a response. Punishment should be regulated with regard to the particular case and its attending circumstances, not by a set of abstract rules. The need for adapting punishment to the age and maturity of the pupil renders it the most difficult of the teacher's duties.⁴

Expelling the unruly pupil, even though it deprives him of an education, is far better "than to lower the moral tempera-
ture of the whole school by exhibitions of brutalizing and degrad-
ing punishments."⁵ Corporal punishment is the extreme use of ex-
ternal control and, where practiced at all, is a constant threat
to all pupils, affects their attitude toward their teacher, and
undermines the real purpose of school discipline--the development
of self-respect and self-control. Temporary suspension serves a
more salutary purpose. As practiced by Dr. Harris this measure
required a parental visit to the superintendent's office and usual-
ly involved a transfer of the pupil to a different school. This
measure then served several purposes; it secured the co-operation
of parents, it tended to keep the pupil in school indefinitely,

¹Harris, "The Public School as an Institution of Civil So-
ciety and the State," op. cit., p. 78.

²Harris, "The Early Withdrawal of Pupils from School,"
op. cit., p. 265.

³Fifteenth Annual Report, op. cit., p. 18.

⁴Harris, "The Science of Education," op. cit., p. 213.

⁵Sixteenth Annual Report, op. cit., p. 23.

and it changed the classroom environment for the pupil so that he could change his ways without the handicap of his previous record hanging over his head.¹

Teachers were forbidden by a Board of Education rule to detain pupils after school for the purpose of learning or reciting lessons² but it is not clear whether this prohibition applied also to detention for punitive purposes.

All promotions were considered provisional or probational. In the high school students were graded each quarter. If they fell below 60 per cent on their score in any subject they were transferred to the class below but they were eligible for re-instatement when their work improved sufficiently.³

Summary and Conclusions

The principles recognized by Dr. Harris, which should govern classroom instruction and pupil management are;

1. Instruction should be adapted to the maturity of the child;
2. Instruction should be inspired; it should be neither mechanical nor dogmatic;
 - a. Interest and zeal on the part of the student should be aroused to overcome any real or imagined limitation of intellectual power;
3. Instruction should result in habit formation;
 - a. Good instruction should produce individuals with strong wills--masters of themselves;
 - b. Good instruction should develop habits of critical observation and clear thinking;
4. Instruction should be differentiated between disciplinary and informational studies;
5. Instruction should be given to pupils in fairly large groups;
 - a. The size of class should depend considerably upon the efficiency of classification;
6. Hygienic conditions should be recognized as affecting the effectiveness of classroom instruction;

¹Ibid.

²Official Proceedings, Board of Public Schools, St. Louis, I (October 14, 1873), 287.

³Ibid. (December 8, 1874), p. 379.

7. Teachers should not be required to follow a set pattern or method in instruction; there should be agreement on objectives but each teacher should be free to devise her own procedures;

8. Instruction should consist chiefly of textbook study and recitation with considerable group discussion;

a. There should be much use of reference materials and comparison of authorities;

b. At the higher levels there should be laboratory experiences provided;

9. The object of discipline should be the development of strong, moral character and rational conformity to social standards;

10. Discipline in the school should move progressively from authority and coercion to moral suasion and self-determination;

11. Self-discipline should grow out of the school standards, environment, and atmosphere; it should not be expected to stem from lectures and moralizing;

12. Punishment should be aimed at correction;

a. Parents should be brought into the solution of serious disciplinary problems;

b. Transfer to another school should be preferred to expulsion or retention in the same school after disciplinary action has been required;

13. Community environmental factors which contribute to school discipline problems should be made the study of sociologists and the subject of proper legislation.

CHAPTER VIII

SUPERVISION OF INSTRUCTION

One of the primary reasons for the creation of the office of superintendent of schools was the recognition on the part of school directors that lay supervision of instruction was inadequate. Previous studies have shown that supervision of instruction was the responsibility most frequently assigned to superintendents at the incidence of their initial appointment.¹ The development of a science of supervision grew apace with that of public school organization and administration but its peculiar characteristics and functions require separate treatment in this study.

In "The Editor's Preface" to one of the earliest textbooks on school supervision Dr. Harris pointed out, in 1890, that some data had been collected and preserved by the Jesuit fathers which clearly demonstrated the value of graded supervision to secure efficiency in schools.² These data grew out of Jesuit educational enterprises of the seventeenth century. It is a sad commentary on the lack of dissemination of research information at that time that this knowledge was not available to early practitioners of the emerging profession of public school supervision and administration in general. Consequently, the early experiments and developments in supervisory practices were endemic in nature and grew entirely out of the urgency of local school problems. Improvised procedures frequently proved efficacious and from sporadic experiments there accumulated and emerged a science of supervision. By 1890, at the end of the first half-century of the existence of the professional school administrator, Dr. Harris assumed that nearly all the avenues of school supervision had been explored

¹Thomas McD. Gilland, The Origin and Development of the Power and Duties of the City-Superintendent, p. 57. Chicago: University of Chicago Press, 1935.

²Wm. T. Harris, "The Editor's Preface," J. L. Pickard, School Supervision, p. vii. New York: D. Appleton and Co., 1890.

and, while resources were only partially developed, the extremes and the limits of efficient supervision had been revealed.¹ While Dr. Harris laid no claim to any major contribution to the science of supervision it is common knowledge that his administrative practices and his educational leadership at this time did much to stabilize attitudes and procedures in this area. Just what his practices and ideas were concerning the supervision of instruction become the subject of this section.

Attitude toward supervision in general.--Very early in his career Dr. Harris voiced his opinion on the efficacy of supervision² and observed that the states which had adopted a system [sic] of county superintendents had improved their educational standards so promptly and steadily that the skeptical observer was forced to admit its effectiveness. General supervision tends, he said, to bring all work up to the highest level whereas the lack of it allows a tendency for all to drift to the lowest level.³ At a time when the duties of all superintendents were inadequately defined and when those of county superintendents were even less established, Dr. Harris called attention to the importance of good supervision of county schools and outlined the duties of such officers. "For the reason that this link of County Superintendency is the most important of all the supervisory links inasmuch as it concerns the education of three-fourths of all people of the land, it deserves far more attention on the part of legislators than it has received."⁴

Dr. Harris was convinced that the progress of schools in this country could be measured at every step by the progress in thorough organization and in the establishment of a system of minute supervision.⁵ One of the chief arguments he used to espouse the graded school system was that it would make it possible to supervise such schools more adequately.⁶ On the other hand,

¹Ibid.

²Harris, "The County Superintendent," American Journal of Education, VIII (January, 1874), 3 f.

³Ibid.

⁴Ibid.

⁵Harris, "Supervision," American Journal of Education, XII (March, 1879), 4.

⁶Harris, "Our Public School System," The Chautauquan, VIII (February, 1888), 280.

supervision was not to be exercised in such a way as to stifle individual initiative nor was it to result in regimentation. Rather, the program, as he visualized it, called for agreement upon objectives¹ to be followed by frequent consultation and comparison of methods.² This he considered an improvement upon the minute course-of-study plan which tended to produce mechanical routine and to cramp the best teachers while failing to improve the poorer ones.³ The spontaneity of the good teacher was not to be destroyed by rigid supervision but better results were to be expected from the good teacher when assisted by organization and system.⁴ The policy of holding subordinate officers accountable for results while leaving them a wide scope in the choice of methods was held as the most effective in developing the strength of the whole.⁵ With the perfection of a system of supervision a growing institution becomes more and more a unit; the momentum of the whole belongs to each part and the energy of the parts is transferred at once to the whole.⁶

Role of the superintendent as a supervisor.--At the time Dr. Harris assumed the superintendency in St. Louis, in 1867, the system already had grown to the point where there were two assistant superintendents, one in charge of English and general instruction and the other in charge of German instruction. Also, there were principal teachers in the various buildings but their functions were almost exclusively that of head teachers with some administrative duties. The rapid growth of the city and the increase in school attendance created such problems in real estate

¹Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools, pp. 189 f. St. Louis: Plate, Olshausen and Company, 1872.

²Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools, p. 136. St. Louis: Missouri Democrat and Job Printing House, 1870.

³Ibid.

⁴Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, pp. 197 f. St. Louis: Plate, Olshausen and Company, 1871.

⁵Seventeenth Annual Report, op. cit., pp. 189 f.

⁶Official Proceedings, Board of Public Schools, St. Louis, I, 77.

transactions, leasing, housing, districting, and so forth¹ as to absorb the attention of the city school directors so fully that they largely delegated the function of classroom inspection and visitation to the superintendent.² Within two years, by 1869, this arrangement was again found inadequate and the President of the Board of School Directors was persuaded to state:

A system of management that answers well for a business at one stage of its growth, has to be radically changed when that business has expanded far beyond its original limits. It is this fact that I bear in mind when I say that our own school system has arrived at that phase which requires a thorough remodeling of the machinery by which its internal management is carried on. . . . If these schools are to be closely supervised by the general Superintendent and his corps of assistants, it is easy to see that the latter must be greatly increased, in order to visit the separate departments as often as is necessary to keep the general tone at its true pitch. The admixture of general business duties at the office of the Board with the special duties of looking after educational methods in the schools, tends to dissipate the strength of the supervising officer, and to distract his attention from the latter sphere of his duties. . . .

I have been for some time convinced that more general duties must be imposed upon the principals of the first class schools. . . .³

It was early apparent to Dr. Harris that, the relation of the superintendent to instruction must be an indirect one in a school system of any considerable size. He recognized the necessity for a division of labor and for an organization where specialized services could be utilized. An arrangement of this nature placed the superintendent in a strategic position where he could control policy and delegate authority, allowing subordinates a wide range of activity--holding them responsible only for results. In this situation the supervisory activities of the superintendent were limited to two general fields. These were (1) general meetings of teachers, and (2) staff meetings with supervising principals, supervisors, and special teachers. A third method of improving teachers in service was strongly advocated by Dr. Harris, namely, that the superintendent should inspire his teachers to form literary societies among themselves and others and to enter

¹Fourteenth Annual Report of the Board of Directors of the St. Louis Public Schools, p. 11. St. Louis: George Knapp and Co., 1869.

²Ibid.

³Ibid.

into fields of aesthetic culture.¹ His reason for advocating such societies for teachers has interesting psychological implications:

The teacher is exposed to a certain paralyzing influence arising from the necessity of his vocation which places him in a position wherein he must keep a constant pull against the arbitrariness and caprice of the child. This produces what has somewhere been called the 'pedagogical cramp.' There is no cure for this equal to the study of literature and art. Hence the importance which the good superintendent will give to the encouragement, by precept and example, of such studies on the part of his teachers.²

Dr. Harris had no illusions concerning the necessity for a superintendent to have a solid background of pedagogical information and on occasion dwelt upon the efficacy of a "mind fertile in devices which work silently and gradually toward improving the method of instruction or the method of discipline."³ The requisite training and previous experience of the superintendent should not only provide him with an insight into school methods but also with a definite cultural background in literature and art and science.⁴ His chief function, however, according to Dr. Harris, is to detect general tendencies in methods and to bring them together and to compare them, one with another. He is to be constantly on the alert for tangential tendencies and matters of general tension or drift when such deviation may not be to the best interest of the schools, or when it appears that the movement is getting out of line with general policy.⁵

In the larger school system the superintendent should have a benign but stimulating, cultural influence on his teachers-at-large and he should meet them in groups or in general assemblies for that purpose. Conversely, with his principals should be discussed such matters as (a) What branches belong in the course of

¹Harris, "City School Supervision," Educational Review, III (February, 1892), 167.

²Report of the Commissioner of Education for the Year 1895-96, I, xxiv. Washington: Government Printing Office, 1897.

³Ibid.

⁴Harris, "City School Supervision," op. cit., p. 172.

⁵Harris, "Organization and Supervision of Schools," American Journal of Education, X (May, 1877), 6.

study and exactly what each contributes to the intellectual development of the child; (b) how each branch should be taught; (c) what should be the manner, form, and spirit of discipline; (d) new experiments, both local and abroad, and similar matters.¹ Volunteers from the supervisory staff should be encouraged to engage in cautious experimentation.²

The supervising principal.--As the St. Louis board of school directors delegated more and more of their inspection and appraisal of instruction duties to the superintendent it became increasingly apparent that the corps of superintendents would need to be greatly increased or that the administrative staff would need to be reorganized so that administrative officers could function as supervisors also.³ It was realized that even good teachers could not be expected to secure good results if they were not assisted by organization and system.⁴ To secure this end Dr. Harris recommended, in 1869, that principals of first class schools act as local supervisors of not only the teachers in their own buildings but should supervise also the instruction in the primary schools in their respective districts.⁵ It was pointed out that other cities--Boston, Cincinnati, and Chicago--faced with the same problem, were developing a similar use of principal teachers.⁶ The board approved the recommendation and in the first trial of the plan advisory powers only were delegated to these supervising principals. They were expected to examine classes, to observe the method of instruction and discipline (and to report on each occasion to the superintendent), and to hold consultation with the principal of each subordinate school.⁷ To assist the supervising principal in the performance of his new duties the superintendent met almost weekly with the twenty principals during the first year of operation of the system. For these meetings the superintendent had as an objective the creation of an "ability to recognize at once the symptoms of any particular form of ab-

¹Harris, "City School Supervision," op. cit., p. 170.

²Ibid. ³Fifteenth Annual Report, op. cit., pp. 10 f.

⁴Sixteenth Annual Report, op. cit., pp. 197 f. ⁵Ibid.

⁶Fifteenth Annual Report, op. cit., p. 133.

⁷Sixteenth Annual Report, op. cit., p. 197.

normal action in the school room."¹ Discussion was concerned with the course of study and methods of instruction or with discipline and management of pupils. Standards were agreed upon and criteria of successful teaching were set up. At the end of the first year the superintendent reported:

Judging by the present results of the plan of supervision, it is destined to achieve far nobler ends than its advocates here had fully expected. . . . We have seen, thus far, in its trial that it is efficient in securing good work even from teachers that have failed signally when left to themselves. The direct and vigilant care of the principal adds a support to the assistant, which converts wavering capricious efforts into irresistible method.²

Since principals previously had been engaged as full-time teachers, a problem was created when supervising duties were added to their responsibilities. Dr. Harris was an advocate of regular teaching assignments for all principals.³ Consequently, none of the supervising principals was completely relieved of his teaching assignment. According to the plan in effect in 1871, the principal of the first class school was "required to hear not less than two, nor more than four, daily recitations in the highest grade under his charge."⁴ The remainder of the principal's time was "devoted to supervision of the work of the other teachers, and in the general conduct of the school."⁵ This arrangement made it necessary to employ a "first assistant" in the building of each supervising principal who took over the principal's room and assumed charge of the building when the principal was engaged in supervisory activities in nearby primary schools. The employment of the "extra assistant" was not considered an added expense but, on the contrary, was considered a practical economy because thirty more pupils were added to the principal's room.⁶ With the provision of supervision on a general scale it was found practicable to increase the number of pupils assigned to each teacher to the extent of an additional one hundred pupils per building.⁷

¹Ibid.

²Ibid.

³Harris, "Organization and Supervision of Schools," op. cit., p. 6.

⁴Seventeenth Annual Report, op. cit., p. 189.

⁵Ibid.

⁶Fifteenth Annual Report, op. cit., p. 133.

⁷Official Proceedings, Board of Public Schools, St. Louis, I (December 12, 1871), 115.

The principal's "daily work of hearing lessons" was presumed to keep him in the status of a teacher supervising the work of teachers. This was desirable, Dr. Harris maintained, because it tended to provide a type of supervision "adapted to the correction of bad methods of instruction and discipline, to the support of weak teachers who have not learned how to apply all of their strength to the best advantage. It gives tone to the school in general and secures uniformity of standard throughout in scholarship and deportment."¹

In the evolution of this new position it was necessary to have a clarification of the areas in which it should function. Since there were special supervisors in some subjects as well as assistant superintendents acting in the capacity of supervisors in some instances, good administrative practice required a definition of functions. The guiding principle which defined the duties of supervising principals was:

Local supervision should not be extended so far as to encroach on central supervision, that of the general superintendent, nor so far on the other hand as to relieve of responsibility the subordinate principals. . . . Independence in the proper sense of the term is to be achieved not through mutual limitation, but rather through mutual agreement and concert of action. All must carry out the same plan and that plan must be broad enough to comprehend the purposes of each.²

The nature of the supervision exercised by the principal should be different from that exercised by the superintendent. The principal should see school work from the point of view of minute details while the superintendent should see more clearly the general results in relation to general standards and objectives.³

After ten years of experience with supervising principals in St. Louis and after observing the general adoption of the system in other large cities Dr. Harris asserted, "The system of supervising principalship has done more to equalize and elevate instruction and discipline in the schools of our large cities,

¹Harris, "Organization and Supervision of Schools," op. cit., p. 6.

²Seventeenth Annual Report, op. cit., p. 189.

³Ibid.

than all other things combined."¹

Supervisors and special teachers.--If amount of comment by Dr. Harris on supervision by subject supervisors and special teachers is a measure of his regard for them, the evidence would indicate that he considered their services of much less importance than the supervision by administrative officers. While it is clearly indicated that a music supervisor was in service during most, if not all, of Dr. Harris' tenure as superintendent, and that handwriting and special drawing instructors were employed, and that kindergarten supervisors were employed after 1876,² seldom did Dr. Harris, in his speaking or his writing, place any credence in their special efficacy. This may be interpreted as a bland acceptance of an established functionary, or it may be interpreted as a deft discount of such services. (It is true that for a period of several years the superintendent and the board of school directors were vexed and then embarrassed by the unprofessional activities of a music supervisor--a fiasco which finally ended in his dismissal--but it is extremely doubtful that Dr. Harris would allow this unfortunate experience to affect unduly his attitude toward subject supervisors in general.)

Special teachers were advocated by Dr. Harris for all subjects dealing with the arts. Such instruction was to be given but once each week to each group of children and was to be given in a special room designed for that purpose.³

In 1895 Dr. Harris observed that the advent of the professional teacher and the expert supervisor had brought about an era of experimentation and agitation for reforms.⁴ Previous to this time the activities of the supervisor had been largely concerned with assisting teachers who lacked adequate professional training.

It is clearly evident, however, that Dr. Harris placed

¹Harris, "Supervision," op. cit., p. 4.

²Twenty-second Annual Report of the Board of Directors of the St. Louis Public Schools, p. 83. St. Louis: Slawson, Printer, 1877.

³Harris, "Industrial Education in the Common Schools," Education, VI (June, 1886), 609.

⁴Harris, "Elementary Education," North American Review, CLX (May, 1895), 541 f.

much more confidence in supervising principals than he did in subject supervisors. In his many addresses and articles on the various aspects of administration, organization, and supervision invariably he had a good word for the work of supervising principals but there was a non-committal silence on subject supervision in the disciplinary subjects. His sole specific printed statement on such supervision came late in life and is a rather oblique commentary--a statement of a general attitude then prevailing with which he undoubtedly concurred:

There has been, too, a great deal of opposition--more marked this year than usual--to the further extension of a certain kind of supervision, namely, that of 'special teachers.' One city, Milwaukee, has entirely discontinued such supervision, others have materially reduced the number of specialists employed, and in still others recommendations of superintendents to the same effect will undoubtedly result in still further reduction in the near future. Questions of economy have naturally had their part in this movement, but such a consideration would scarcely have had much weight in this time of improved financial conditions and prospects were it not for the belief that, with the better preparation of teachers now demanded, special supervisors are of distinctly less value than formerly.¹

Summary and Conclusions

In the area of supervision Dr. Harris advocated the observance of these principles:

1. The supervision of instruction should be facilitated by the adoption of a graded system;
2. Supervision should encourage individual initiative on the part of the teacher; it should not result in regimentation;
 - a. Supervision should largely confine itself to securing agreement upon objectives to be followed by consultation and comparison of methods;
3. Supervision of instruction by the superintendent of larger systems should be largely by indirect methods--the use of intermediary subordinates;
4. The superintendent should improve instruction by providing teachers with inspiration and guidance through addressing them in general sessions frequently and through encouraging teachers to form literary societies for the improvement of their own

¹Report of the Commissioner of Education for the Year 1898-99, I, xxxvi. Washington: Government Printing Office, 1900.

culture;

5. In order to carry out his function as a supervisor the superintendent should have a background of experience and training in school methods and discipline and a definite culture in literature, art, and science;

6. In larger systems the superintendent should delegate supervision of instruction in the substantial areas of learning to the supervising principals;

7. Supervising principals should retain some teaching duties to keep in sympathy with the teacher's problems;

8. The use of special teachers and subject supervisors should be confined to the less substantial subjects, namely, art, music, drawing, and such vocational subjects as may be offered.

CHAPTER IX

PERSONNEL PROBLEMS CONCERNING TEACHERS

Except during depression years, the matter of an adequate supply of teachers was a constant problem. Two factors were influential in this respect in the city schools of the nation. First, the cities were growing rapidly, a circumstance which occasioned a constant and unprecedented increase in the child population. Second, the holding power of the schools increased as the schools improved and as the economic status of the average family was raised.

The problem of securing an adequate supply of trained teachers had prompted the establishment of a city normal school in St. Louis several years prior to Dr. Harris' administration. The better students in the grammar school, and later the better high school students and graduates, were encouraged to prepare for teaching.

Employment criteria.--In St. Louis and elsewhere preferential consideration was always given to recent graduates of the normal school when vacancies occurred. In 1872 it was necessary, however, to obtain 40 per cent of all new employees from outside the city and it was at this time that a liberal employment policy was stated.¹ Later there was considerable public pressure to recruit all elementary teachers through the local normal school but this did not become a policy although it was a practice during years of economic distress.

The teachers' committee of the board of school directors was the official employing agency and acted in that capacity for many years. However, as the schools grew from year to year this responsibility assumed such magnitude that it became necessary to set up some sort of a screening device. In 1872, after some experimentation, this device took the form of a "Committee of Ex-

¹Official Proceedings, Board of Public Schools, St. Louis,
I, 166.

aminers," established by Rule 79 of the board of directors.¹ The "Committee of Examiners," as established by this Rule, was composed of the superintendent, his two assistants, and the principals of the normal, high, and branch high schools. The duties of the committee were;

To examine applicants for situations as teachers in the schools, and to keep a record of all such examinations, and to report the result of the same to the Teachers' Committee, in accordance with such regulations as said committee may prescribe, the reports of the Examining Committee to be signed by all the members composing the same.²

It was a definite policy to require all newly appointed teachers to fill temporary vacancies until they gave evidence of their capacity to fill permanent positions.³

Experience was not an employment criteria for graduates of the city normal school but it was a requirement, in lieu of normal school training, for those teachers hired from outside.

Remuneration policy.--A general salary schedule for all teachers was set up in St. Louis as early as 1871.⁴ At that time the board agreed upon a classification of salaries for teachers in the normal, high, and intermediate schools to complement the schedule which had been in effect for several years for teachers in the district schools.⁵ [As noted in Chapter III, the intermediate schools were experimental in nature and had a short life of two years to service pupils, usually slow learners and sluggards, who could not yet qualify for high school.]

The salary schedule classified assistants [teachers] into three groups (first class, second class, and third class assistants) at each of four levels: district schools, intermediate schools, high schools, and normal school. The only variations from the general schedule were allowed in the case of male instructors in the high schools and the intermediate schools and in the case of the lowest grade teacher, the first grade teacher, in

¹Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools, p. 32. St. Louis: Democrat Lithographing and Printing Co., 1874.

²Ibid.

³Ibid.

⁴Official Proceedings, Board of Public Schools, St. Louis, I (June 13, 1871), 67.

⁵Ibid.

the district schools. The higher salary was paid at the first grade in order to retain excellent teachers at that strategic level;¹ it was a recognition of the need for specially qualified teachers for the new entrants to schools and was a reaction to the tendency for teachers to seek promotion by shifting to higher grades each year.

THE ST. LOUIS SALARY SCHEDULE--1871

Classification	I. Normal School Instructors ^a				
	First Year	Second Year	Third Year	Fourth Year	Fifth Year
First Class	\$1,200	\$1,300	\$1,400	\$.....	\$.....
Second Class	900	1,000	1,100	.....	.....
Third Class	700	800	900	.....	.....
II. High School Instructors ^a					
Male Assistants	1,600	1,700	1,800	1,900	2,000
Female Assistants					
First Class	1,200	1,300	1,400	.....	.....
Second Class	900	1,000	1,100	.....	.....
Third Class	700	800	900	.....	.....
III. Intermediate School Instructors ^a					
Male Assistants	1,600	1,700	1,800	1,900	2,000
Female Assistants	700	800	900	.....	.....
IV. District Schools--(1875 Revision) ^b					
First Class	800	900	1,000	.....	.....
Second Class	600	700	800	.....	.....
Third Class	400	450	500	550	600

^aOfficial Proceedings, Board of Public Schools, St. Louis, I (June 13, 1871), 67.

^bIbid., II (January 11, 1875), 91.

It is evident from the foregoing salary schedule that a separate and lower salary schedule was in effect for elementary

¹Ibid. (April 11, 1871), p. 41.

teachers. In reality three schedules were incorporated into one general scheme: (1) a schedule for men, (2) a schedule for women which was identical in the high school and the normal school, and (3) a schedule for teachers (all female) in the elementary grades. There was an obvious discrimination in favor of men teachers; their initial salary of sixteen hundred dollars was more than double that of beginning women teachers. The ceiling salary for men teachers, two thousand dollars, was equal to that of principals of first class district schools. The higher salaries paid to high school and normal school instructors presumably was justified by their higher culture and, in most cases, advanced training.

The salary schedule makes no provision for, nor requirement of advanced schooling after employment. Neither is any mention made of specific training requirements (beyond that of normal school training for elementary teachers) as a prerequisite for employment. It may be assumed that college-trained teachers were preferred for the high school but the baccalaureate degree is not mentioned as a requirement.

The schedule quoted for the district schools was a revision of an earlier schedule which could not be located in the records. The revision of 1875 introduced a lower minimum for third class teachers, a fifty-dollar annual increment (instead of the previous one hundred dollar annual increment), and made possible a prolongation of the third class rating.

It was assumed that a teacher would improve enough in three years, under ordinary circumstances, to enter the next higher class. By the end of three years as a second class teacher, the instructor should rate promotion to the rank of first class teacher and be eligible for three more increments, which would be her ceiling salary unless she entered the supervisory or administrative staff.

Principals of first class district (elementary) schools were paid a flat salary of two thousand dollars.¹ There was no annual increment; neither was there any discrimination between men and women in such positions. A district school which accommodated pupils above the sixth grade was classified as a first class school.² The principals of first class schools had supervisory

¹Ibid. (June 13, 1871), p. 67.

²Ibid. (January 13, 1874), p. 307.

responsibility over the second class schools adjacent to them. Principals of second class schools received the top salary of first class teachers.

There is evidence that Dr. Harris did not consider the salary schedule as particularly binding on the employment policy of the board. On the contrary it was used more as a convenient way to preserve the morale of the teaching corps. It is a matter of record that over a period of years teachers' salaries were adjusted according to supply and demand rather than in strict conformity to the salary schedule. In 1875 when there was an over-supply of teachers available a lower beginning salary was established for third class teachers.¹ In his Annual Report for 1875 Dr. Harris stated, "Economy in salaries is a matter that should be regulated by the question of 'supply and demand.'"² Again in 1878, in the depths of the depression, Dr. Harris records in the Official Proceedings that "the average of teachers' salaries is now \$643 per annum; last year at this time it was \$714.38, or \$71.38 higher and the year before last it was \$786.84, or \$143.84 higher than now."³

In one of Dr. Harris' last addresses to the National Education Association, in 1907, on "Public School Finance" he epitomized his philosophy concerning salaries and the maintenance of morale among teachers:

One of the important matters which concern the economy of resources is the grading of salaries so as to recognize, in the first place, the improvement of the teachers through experience and length of service, and, secondly, the improvement of teachers that comes from assuming greater responsibilities and making extraordinary effort to master difficulties. There should be a grading of salaries according to mere length of service with increase of fifty or one hundred dollars a year.

If this graded increase is continued too long it brings with it a salary too high for that quality of teachers' work which does not improve beyond the stage of mere routine and which commonly reaches its highest level in the fourth year of service.

More important, therefore, is the second grading of

¹Ibid., II (January 11, 1875), 91.

²Twenty-first Annual Report of the Board of Directors of the St. Louis Public Schools, 1875, p. 35. St. Louis: Globe-Democrat Job Printing Co., 1876.

³Official Proceedings, Board of Public Schools, St. Louis, III (February 12, 1878), 15.

salaries, based upon difficulty of work, upon high skill in teaching, or upon superior learning. . . .

The second grading of salaries start with promotions from the time-graded lowest class and rewards the teachers of earnest character, skill, and successful instruction by promotion from rank to rank up to the directive power in the schools and the highest grades of salaries. . . .

This second grading of salaried teachers, that is based on skill and learning, saves the schools from losing their best talent by promotion to better salaries in other cities. The reaction of this class of teachers on the class of teachers who rise only by time of service is very wholesome in preserving the professional spirit of the schools; and their good devices of instruction and discipline become the possession of their less progressive neighbors.¹

In another address given two years previously to the same group, Dr. Harris developed the thesis that, as public employees, teachers have no right to complain if their salaries equal the average per capita income of the wage earners of the nation. In 1900 the average income of those in gainful occupations was \$551.56. Therefore, reasoned Dr. Harris, a salary of \$600 should be considered about right for a teacher as a standard wage but there should be "plenty of higher positions for him, with advanced wages, as a reward for his increase in skill and culture."²

Substitute teachers.--The matter of temporary replacements made necessary by illness among five hundred or more teachers is a considerable problem in any school system. In St. Louis this problem came before the Joint Committees of the Board on Salaries and Teachers for solution in 1874. At Dr. Harris' suggestion the policy was adopted to require teachers on the substitute list to report at the office for duty, up to a total of eight substitutes per day. For so reporting, if not assigned to duty, the substitute was allowed one half the daily minimum pay of a regularly appointed teacher. Those assigned to duty received the full daily minimum pay of a regular teacher.³

¹National Education Association, Journal of Proceedings and Addresses of the Forty-fifth Annual Meeting, 1907, pp. 356 ff. Chicago: University of Chicago Press, 1907.

²Wm. T. Harris, "The Future of Teachers' Salaries," National Educational Association, Journal of Proceedings and Addresses of the Forty-fourth Annual Meeting, p. 76. Chicago: University of Chicago Press, 1905.

³Official Proceedings, Board of Public Schools, St. Louis, I (December 8, 1874), 380-81.

Leaves of absence.--The first record of the granting of leaves of absence to teachers was entered in the Official Proceedings of the Board of Public Schools on March 10, 1874. At that time six teachers from six different schools requested leaves of absence which were granted by board action "with the understanding that leave of absence does not entitle a teacher to his or her former position on return, but that such teacher, on reporting for duty, shall await re-assignment by the Teachers' Committee."¹

Sick pay for teachers.--A policy was adopted by the Board in 1871 of allowing half-pay to teachers during illness for a period of five weeks. Death in the family entitled the teacher to two days off during any half-quarter with no loss of salary. For other absences of teachers a pro rata deduction was made.²

Teachers' pensions.--During the interim of Dr. Harris' administration in St. Louis there was no overt discussion or agitation for a retirement plan for teachers. By 1895, however, the question was one which caused considerable agitation among teachers and legislators all over the country. Dr. Harris took cognizance of the situation and through the Bureau of Education issued a statement of the laws and regulations then in effect in those places which had set up a plan for teachers' pensions and annuities. Dr. Harris took care not to commit himself on the subject but went to some pains in this instance to provide information to teachers on the proper procedures to frame constitutions and by-laws of annuity societies, and to formulate legislative bills for pension laws.³

Summary and Conclusions

The growth and development of a new class of professional, public service employees made necessary the formulation of policy in regard to personnel matters. As a professional practitioner and policy-maker these were the principles advocated and practiced by Dr. Harris in the area of personnel management:

1. Preferential consideration should be given graduates

¹Ibid. (March 10, 1874), p. 317.

²Ibid. (March 14, 1871), p. 36.

³Report of the Commissioner of Education for the Year 1894-95, I, xxii. Washington: Government Printing Office, 1896.

of the local normal school in employing new personnel;

2. The board of education should delegate the examination and recommendation of new employees to professional educators and reserve to itself the matter of appointment;

3. A salary schedule should be formulated as a matter of good personnel policy as well as fiscal expediency;

a. A separate and lower bracket should apply to elementary teachers;

b. A separate and higher bracket should apply to men teachers;

c. Salaries should be determined by classification in terms of merit and according to years of service with annual increments for each;

d. The increments for experience should terminate with the fourth year of service;

4. The promulgation of a salary schedule should not obstruct the board of education in adjusting teachers' salaries according to supply and demand;

5. The salary should attach to the position rather than to the individual;

6. Women, exclusively, should be employed to teach in the elementary grades;

7. A few positions of promotion should always be available to reward the faithful and meritorious;

8. For practical purposes, and as public employees, teachers' salaries should be based on the per capita production of the nation;

9. Leaves of absence should be granted to teachers upon proper petition but no assurance should be given the teacher that she will return to the same position she left; upon return such an employee should be subject to re-assignment;

10. Partial pay should be continued for a limited time to teachers who are incapacitated; no deduction should be made for reasonable absence on the occasion of death in the teacher's family.

In his financial dealings with teachers Dr. Harris was a conservative realist. His salary schedule and his compensation policy in general was comparatively liberal for his times and, in many respects, is still a defensible program.

CHAPTER X

PLANNING AND CONSTRUCTION OF SCHOOL BUILDINGS

As Dr. Harris analyzed it, the office of superintendent began with functions as "diverse as janitor work and the formulation of a course of study" and proceeded then over the course of years to eliminate, one by one, the custodial duties, the purchasing of supplies, the keeping of records, the supervision of school building construction and the tabulation of statistics.¹ While these functions passed out of the immediate, personal duties of the superintendent in the larger cities they still remained a part of his general responsibilities although they were delegated to members of his office staff.² The planning and construction of school buildings, however, is one responsibility which has traditionally absorbed much of the time and energy of the superintendent. Never was this more true than during the decades following the Civil War when the size of urban centers and the popularization of the public school grew apace.

The era of the Lancastrian school had left in its wake in almost every city and town a vestigial monument--a school building ill-adapted to an emerging educational institution, the graded American public school. New concepts of school hygiene demanded better lighting, better ventilation, better heating and, later, better plumbing. The provision of adequate playground space in connection with every building became an accepted practice. The advent of physical education (or physical culture as it was called), of industrial arts, and other vocational subjects each required further adaptation of the building facilities. It is the purpose of this chapter to indicate the nature of Dr. Harris' contribution to the science of school-building planning and construction during this period when adaptation was imperative.

¹Wm. T. Harris, "City School Supervision," Educational Review, III (February, 1892), 167.

²Ibid., pp. 167-68.

St. Louis building code.--When Dr. Harris assumed the superintendency in St. Louis he inherited a system of school houses built on what the Annual Report of 1867 described as the antiquated plan which required a large study-hall with small classrooms attached and a building arrangement with one or more independent departments on each floor of the building.¹ To improve this condition the board had adopted a code to control its building program. The code was adopted after a trip by Dr. Harris' predecessor, Superintendent Ira Divoll, to the principal cities of the nation to secure the latest information on improvements in school architecture and building equipment. One of the cities visited was Boston and its celebrated Quincy School. It is from this building that most of the inspiration was received for the graded school architectural pattern subsequently adopted in St. Louis. The code was published in the Annual Report for 1867:

1. It is the true policy of the Board to build and own its school-houses, rather than to rent unsuitable tenements;
2. No more houses [shall] be built according to the old plans, but that graded schools be established in the future;
3. The school-houses hereafter to be built [shall] be of uniform size throughout the city, as nearly as the demands of the different districts will permit: those in thinly settled districts to be one-half or one-third the full size, and constructed with the view to receiving additions when required;
4. Each first-class school-house [shall] contain twelve rooms, with seats for about seven hundred scholars, and be provided with separate play-grounds, doors, stair-cases, etc., for boys and girls;
5. The scholars [shall] be classified according to their respective attainments, so that those who may be allotted to any one teacher will be equally advanced and pursuing the same studies: the primary scholars to be seated on the first floor, the intermediate on the second, and the most advanced on the third;
6. There [shall] be but one organization and one principal teacher for each building;
7. Such of the old buildings as will admit of alteration [shall] be reconstructed and adapted to the graded system.²

While the foregoing code was adopted during Superintendent Divoll's administration the finances did not become available to

¹Thirteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1867, pp. 114-16. St. Louis: Missouri Democrat Book and Job Printing House, 1867.

²Ibid.

put it into operation before his retirement. The growth of the city of St. Louis was phenomenal in the later sixties and early seventies. Dr. Harris commented in 1872 that only one city in the nation, Chicago, was growing faster than St. Louis. The rapid growth made necessary the building of three large (twelve-room) buildings each year.¹ In this situation Dr. Harris philosophized,

The more rapid the growth of a city, the more important is the question of a correct plan of school architecture. . . . The tendency is to copy existing structures in the plans for new ones. Every dollar of capital already invested acts as a conservative influence to force new investments into the same channel. For if new and better plans are adopted the value of the old improvements is diminished in value.²

He went on to state that the one indispensable item in a school room is proper lighting. He advocated windows on two sides, at least, of each school room and stated that the better planned school house has four rooms on each floor, each room on a corner.³

Dr. Harris listed some of the points to be observed in the construction of a large school house:

1. By 'large' school house one should not mean so large as to hold 900 pupils, but one that will hold 700. It should have twelve rooms (one for each teacher). . . . It should not be more than three stories in height; "

2. The rooms should be 25 to 27 feet wide and 30 to 32 feet long and about 14 feet high. These dimensions cannot be changed without injuring the rooms in some important feature. . . . ;

3. Each room should have at least four large windows, extending nearly to the top of the room. The windows are the only resort for sufficient ventilation in warm weather (and in most school buildings even in cold weather). Windows on one side of the room cannot ventilate a room sufficiently. If the windows on two sides of the room are lowered from the top, a current of air across the upper part is occasioned, which removes the foul air by draught. The pupils should be seated, as to face the side of the room where there are no windows, letting the light shine in from the back and from the side.

4. The halls or passageways should be so constructed that no recesses or corners are left, in which pupils may escape the view of the teacher, who watches over their entrance or exit. A single teacher should be able to take in at one glance the whole length of the hall.

¹Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, pp. 87-90. St. Louis: Democrat Lithographing and Printing Co., 1873.

²Ibid.

³Ibid.

5. Heating and ventilation are justly esteemed of the utmost importance. Fifty or sixty pupils coming into the room at once from the cold, will lower the temperature of the room several degrees. The furnace or stove is made to do its utmost and in a few minutes the room becomes uncomfortably warm. How to regulate the inflow of fresh heated air and the outflow of the foul air is a difficult problem, solved only by approximation as yet. The registers for the outflowing current of cold and foul air should be at the bottom of the room.¹

School directors vs. municipal government as building agency.--In 1869 Dr. Harris made a pointed argument in favor of the construction of school buildings by the board of education. He noted that St. Louis stood almost alone among large cities in that respect. Whereas other cities, with the municipal government authorizing, planning, and supervising school building construction, had made huge expenditures of money for useless ornamentation, this had not occurred in St. Louis. On the contrary, the board of education by virtue of a fund of accumulated experience and information was able to arrive "at fixed rules and usages regarding a variety of essential details: the proper size of rooms; the size and number of windows, their position relative to the desks of pupils and teachers; ventilating flues; furnaces versus stoves; the best blackboards; arrangement of halls, stairways and wardrobes; yards and outhouses."² With this knowledge and experience the board of education of St. Louis, whose exclusive duty it was to look after the schools, was much better qualified to control the school-house building program than was any other agency. This was Dr. Harris' contention and he noted that new and valuable information was gained with each new building so that there was constant improvement as a result.³

Location of buildings.--In naming the characteristics of a model school building Dr. Harris specified that it should be centrally located in the district [ward] but that it should be at least one block away from business streets so that noise from this section would not interfere. Also, its pupils should not be re-

¹Ibid.

²Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1869, pp. 14-15. St. Louis: Missouri Democrat and Job Printing House, 1870.

³Ibid.

quired to cross heavily travelled thoroughfares or railroad tracks to reach the school.¹

The lot should be large, at least 125 to 150 feet, for a school housing 700 pupils. Two reasons were given for specifying a large lot: first, so that smaller children and larger ones may have separate playgrounds; and, second, so that neighboring high buildings will not shut out light to the lower story windows of the school building.²

In 1875, when the problem of redistricting came up, it was noted that some buildings were poorly attended because they were remote from the centers of population in their districts, on ungraded streets, or near railroads. In most cases these were new building units, built with an eye to the future in what was a fast growing section. The depression had stopped the expansion and the buildings were left poorly located, at least temporarily so until the area would become more populated.³

Temporary buildings. --The pressure of growth in pupil population forced the board of education to consider the expedient of temporary housing for the first time in 1873. Financial stringency was a definite factor also. Temporary one-story brick buildings were proposed to be built in the yards of the large, overcrowded schools. The advantages claimed were several: the cost per room would be approximately one thousand dollars compared with three thousand dollars per room in a twelve-room structure; no extra yard room would be required; no extra expense would be required for janitor or principal because the present incumbents would merely increase the scope of their duties. Caution was to be taken that the architectural effect of the original twelve-room building was not lost; a cluster of smaller, cheaper buildings around each large school was considered as heightening the effect of the larger building. At the same time the influx of a larger number of children was expected to improve the opportunities for classification of pupils.⁴

¹Ibid., p. 69.

²Ibid.

³Official Proceedings, Board of Public Schools, St. Louis, II (April 20, 1875), 23.

⁴Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1873, pp. 9-10. St. Louis: Democrat Lithographing and Printing Co., 1874.

The experiment was tried in connection with the Hamilton School. In February of 1874 Dr. Harris recommended the erection of similar buildings, two in each case, on the grounds of two other elementary buildings. It is interesting to note that this additional capacity was to be provided to accommodate the annual influx of students in April which was attributed to the milder weather.¹

In the records of the period one of the recurring justifications for the temporary buildings was to capitalize on the popularity of an established school. It was recognized that some time was required for a building in a new location to build up prestige and popularity. Adding new units to an established school enhanced its prestige in the minds of the local citizenry.²

The practice of building temporary structures on the grounds of the larger schools was found so satisfactory that in 1876 the Board discontinued the policy entirely of building small separate primary schools. "It is found that the people prefer to send their young children to the large district school, even when it is a greater distance, for the sake of the surveillance of the older children who attend the grammar department."³

The question might well be asked as to why no additions were built directly onto the twelve-room building when it became overcrowded. The answer lies in Dr. Harris' conversion to the style of building which made every class-room a corner room with light from two sides; any addition would destroy this pattern as well as the architectural symmetry which was the pride of each school district. An additional, but probably secondary reason was that the cost of the small separate building was much less per room than it would have been as an adjoining addition.

Interior arrangement.--Dr. Harris was of the opinion that the size of classrooms should not vary much from 28 x 31 x 14. If they were much larger it would put too much strain on the teacher's voice, "and produce throat diseases" [*sic*]. Too small rooms make

¹Official Proceedings, Board of Public Schools, St. Louis, I (February 10, 1874), 311.

²Twenty-second Annual Report of the Board of Directors of the St. Louis Public Schools, 1876, p. 64. St. Louis: Slawson, Printer, 1877.

³Ibid.

ventilation more difficult and leave inadequate space for movement of pupils.¹

Wardrobes should join the rooms so that pupils pass through them in entering and leaving the room.²

Pupils should sit facing the side of the room having no windows.³

The halls and passageways should have no nooks or recesses in which children may loiter or play without observation. All hallways should be well lighted from end to end so that a teacher in charge may observe everything going on. Dr. Harris said, "Upon the arrangement of halls and stairways depends largely the discipline of the school."⁴

A variation in the size of rooms was made in the case of the kindergarten. The larger number of pupils and the need for more play space brought about the adoption of a room sixty feet long by thirty-two feet wide.⁵ When a temporary, small building was erected for kindergarten use, these specifications were followed as to size. When a kindergarten room was included in the plans of a larger twelve-room style building, the kindergarten occupied the space of two ordinary rooms on the first floor; thus it occupied one-half of the floor space of the first story and had light from three sides.

Another variation was introduced at the kindergarten level in the seating arrangement--there were no fixed pupil stations. The evolution of a satisfactory seating arrangement utilizing tables and chairs has been described in Chapter VII.

Except in the kindergarten room the standard pattern of seating was fixed desks. The desks were single, double, or longer.

Heating and ventilation.--One of the first problems that gave Dr. Harris concern when he became engaged in supervising the construction of school buildings was that of heating and ventilation. "The model school building should be well heated and ventilated, of course. The foul air which is thrown off from the lungs and bodies of fifty or seventy children soon renders a room . . .

¹Fifteenth Annual Report, op. cit., p. 69.

²Ibid.

³Ibid.

⁴Ibid.

⁵Harris, "Story of the Kindergarten in St. Louis," Report of the Commissioner of Education for the Year 1890-91, II, 1047-48. Washington: Government Printing Office, 1894.

unfit to breathe in, unless a large supply of fresh air has been introduced."¹

The maintenance of proper moisture content in the air, humidity, without opening windows was considered at the same time. In this Report Dr. Harris discussed at length the problem of securing circulation of air when different heating methods were used. Those available at that time, all of which were described and analyzed, were: open fireplace, open stove, hot-air furnace, and steam coil. These are listed in their order of preference [sic] so far as securing proper circulation of air is concerned. He called attention to the fact, however, that the two most desirable methods of heating so far as ventilation is concerned, open fireplace and open stove, are the least satisfactory in giving equal or even distribution of heat in the room. A moot question of the day was "whether the pure air should come in at the top or bottom of a room" and this he discussed pro and con. Finally, he concluded with a description of the low-pressure steam heating system being tried out with success in Chicago--a system which secured ventilation by the use of a fan which drives in heated air in the winter and cooled air in the summer. "An outlay of ten thousand dollars for the heating apparatus of one building seems exorbitant. But if the end is achieved completely, who will say that an improvement in the physical health of our children does not justify it?"²

Thirty years later, in 1900, he stated again:

Undoubtedly the ideal plan for warming and ventilating [school] houses includes a fresh-air shaft, bringing down the air from the top of the building, heating the same, and forcing it into the schoolroom by a fan moved by steam or other power. . . .³

The great majority of school buildings over the country, however, were not equipped with such modern apparatus; they were dependent on windows, doors, and chimney flues for ventilation; for heating they used stoves, hot-air furnaces or steam coils.

¹Fifteenth Annual Report, op. cit., pp. 69-70.

²Ibid.

³Harris, "The Method of Ventilating Schoolrooms by Windows and Fireplaces," Report of the Commissioner of Education for the Year 1900-1901, pp. 246 ff. Washington: Government Printing Office, 1902.

The universal tendency in such conditions, he pointed out, was to raise windows from the bottom when ventilation was needed, a practice which was inimical to the health of the pupil. For this reason he advocated all of the windows should be lowered from the top just slightly, no more than necessary "to produce the change of air in the whole room by the descent of a thin sheet of cold air down the windows and the wall to the floor." This method was to be facilitated by the placement of vents at the bottom of the room which opened into a large ventilating flue surrounding the smokestacks. This vent and the circulating draft was supposed to clear the room of "sour schoolroom air."

In the absence of built-in flues and vents Dr. Harris recommended an open fireplace in some part of the schoolroom in which a small fire was to be kept burning constantly, even in summer. In the absence of an open fire he suggested a small kerosene lamp be kept burning in the fireplace to cause an ascending current of air to draw out the "bad air at the bottom of the room. . . ."¹

Summary and Conclusions

Dr. Harris advocated the observance of these principles in planning, constructing, and maintaining school houses:

1. The board of education should be the agency to make the entire arrangements for the housing of school children;
 - a. A definite code should be formulated to guide the board in its building program;
 - b. Improvements and adaptations should be incorporated into new buildings as experience proves their desirability;
 - c. Within a given city the style and size of finished buildings should be uniform;
2. Buildings should be constructed so that all classrooms shall have light from two directions;
 - a. Seating should be arranged so that students face a wall without windows;
3. A constant exchange of information concerning architectural innovations should be maintained between cities;
4. Elementary buildings should be constructed to house a maximum of seven hundred pupils;

¹Ibid.

- a. The maximum height should be three stories with older children housed on the upper floors;
- b. Rooms should be approximately 28 x 31 x 14 except the kindergarten which should be the same width and height but sixty feet long;
- c. Halls and passage-ways should be well lighted and free from recesses and obstructions;
- d. Wardrobes should join the rooms so that pupils could pass through them when entering or leaving the room;
- e. Pupil stations should be stationary desks except in the kindergarten where small tables and small chairs should be provided;

5. School buildings should be located near the center of the school district, at least one block distant from business sections; it should not be necessary for pupils to cross thoroughfares or railroad tracks to reach the school;

- a. The lot should be at least 125 by 150 feet in order to provide playground space and insure proper lighting for the lower floor of the building;

6. When more housing is needed for a given district, small one-story buildings should be erected on the grounds of the original school; additions should not be made directly to the original building;

7. Heating and ventilation of buildings and rooms should be by the most scientific method, regardless of cost.

In his discussion of building problems Dr. Harris makes no mention of floor surfaces, artificial lighting, decorations, safety devices, use of basements, type of foundations, building materials, or plans for special rooms except kindergarten.

CHAPTER XI

SCHOOL FINANCE

In most cities the administration of school finance was retained as a function of the board of education long after other duties were delegated to the superintendent.¹ However well the school trustees may have handled this aspect of administration it was still a side-line activity for them and one which by necessity could only receive intermittent attention. Thus as the public school grew in both size and complexity the business and financial responsibilities demanded a constant control which, in most instances, devolved upon the superintendent or his office. The strength of the superintendent as a business manager had a great bearing on the rapidity with which boards relinquished the administration of financial matters to his office.²

In St. Louis, where the board of directors of the public schools operated for the most part as an independent fiscal agency, the "Committee on Ways and Means" and the "Committee on Lands and Claims" for many years acted as the clearing agencies for financial matters. It is quite evident from the records of the Official Proceedings of the Board of Public Schools that within a short time after the accession of Dr. Harris these committees came to rely on his judgment and recommendations more and more. Action of the board was recorded in the form of acceptance and approval of committee reports but almost invariably there is some reference or intimation that the superintendent had been instrumental in bringing about the committee action or in determining the slant or direction of the committee's recommendations. The secret of Dr. Harris' influence in this respect was in his approach and handling of matters on which he desired board action. His system was the essence of simplicity and serves as an exemplary

¹Ward G. Reeder, The Business Administration of a School System, p. 34. Boston: Ginn and Company, 1929.

²Ibid., pp. 32-33.

demonstration of how an expert in a profession may work harmoniously and effectively with a board of laymen.

Dr. Harris respected his board, individually and collectively. He never brought matters suddenly to the board's attention with a demand for action. Rather, when he had a project in mind of any consequence or out of the usual line of routine, he would take some time at a board meeting to describe and discuss this local problem which deserved their attention. If there was enough interest developed among board members the problem would be assigned to a standing committee, a joint committee, or a special committee. If there was a lack of interest shown Dr. Harris would let the matter rest for a few weeks or months and then present it again with impressive statistics, tables, and figures explaining the local background and need for whatever he was proposing. All the pertinent data and arguments were presented pro and con along with reports from other cities, particularly Louisville, Chicago, Boston, and Milwaukee. The second time he presented a proposition Dr. Harris invariably got action, usually the designation of a committee to investigate and make recommendations for board action. Since Dr. Harris had already demonstrated his knowledge and familiarity with the problem at hand the committee would promptly accept his guidance and leadership in carrying out their assignment. The report back to the board thus amounted to a restatement of the action desired by Dr. Harris with occasional modifications which the committee had worked out with the superintendent. This procedure developed a feeling of mutual respect which grew with the passing of years. It explains perhaps better than anything else the success with which Dr. Harris introduced or developed in St. Louis many administrative practices and procedures considerably in advance of other cities. In financial matters his astuteness equalled his philosophic reasoning; his theory seldom ran ahead of his practical judgment.

Fiscal Policy

The specific science of school accounting was to wait for many years for development but problems of fiscal policy demanded refinement and solution as soon as boards of education began to function as agencies of the public. This was particularly true of the independent boards, such as existed in St. Louis. In all matters involving finance Dr. Harris was of the opinion that the

superintendent should have a definite influence.

. . . . Of course, the financial concerns of the schools, the grades of salaries, the cost of apparatus and incidental supplies should have the superintendent's consideration, no matter how efficient the school board or committee may be. . . .¹

Salary standards.--The policy of utilizing standard categories for the determination of annual salaries of all teachers in St. Louis was adopted in 1871.² Dr. Harris was opposed to any compromise which would reduce the standard of instruction. Cheap tuition was not necessarily a desideratum.

The rationale of cheap tuition is based on three things: first, cheap teachers; second, the assignment of large numbers of pupils to each teacher; third, the regularity of attendance. It is obvious that all these items affect the quality of instruction. Very cheap teachers (i.e., who are paid very low salaries) are likely to be dear at any price. They are lacking in discipline . . . or they lack in qualifications for instruction. . . .³

The salary policy called for annual increments, within limits, for service and for merit. Thus the maintenance of morale was recognized.

In 1905 Dr. Harris stated his belief that the basic teacher's salary should be the equivalent of the average per capita income of all gainfully employed persons in the United States. Variations upward should be as a result of service, merit, and promotion.⁴

Rented vs. owned school properties.--It was early discovered that even the temporary use of rented properties for school purposes was unsatisfactory. Dr. Harris indicated in his Annual Report for 1870 that rented buildings were unsatisfactory from the standpoint of architectural arrangement, hygienic surroundings

¹Wm. T. Harris, "City School Supervision," Educational Review, III (February, 1892), 168.

²Official Proceedings, Board of Public Schools, St. Louis, I (June 13, 1871), 67.

³Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1872, p. 30. St. Louis: Democrat Lithographing and Printing Co., 1873.

⁴Harris, "The Future of Teachers Salaries," National Educational Association, Journal of Proceedings and Addresses of the Forty-fourth Annual Meeting, 1905, p. 74. Chicago: University of Chicago Press, 1905.

(lack of playground space and poor lighting), and as a matter of economy. He quoted figures to show that, disregarding the inconveniences of the rented facilities, it cost five dollars more per child each year to house children in rented property. Under these circumstances a new eight-room building would pay for itself in six years. "As a matter of economy therefore, the people of St. Louis cannot afford to use rented buildings except in cases of temporary necessity."¹

Securing funds for operation.--As an independent fiscal agency the board of education in St. Louis naturally derived its income from a tax levy for school purposes. In addition to this the board owned more than two million dollars worth of real estate, in 1873, which was held for revenue purposes.² The Board found itself in a strained financial condition at that time. It had been customary for years to secure short term loans to pay current expenses and to carry the floating debt until the revenue came in. However, there was an increasing problem of delinquent taxes, the money market became tight and rates of interest ran as high as 8 per cent. At the same time the population growth was requiring an enormous and continuing building program to house the children. Under these circumstances the board adopted a policy of advertising and selling "such portions of the school property . . . most desirable to sell, so as to provide a fund for the payment of the debts of the Board, and to build new schoolhouses as they may be required."³

In the Annual Report for the year following, the new fiscal policy was explained to the public and a table was included for the first time giving an accounting of "The Sinking Fund" set up by the board for the retirement of indebtedness through the sale of school properties.⁴

¹Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1870, pp. 13-14. St. Louis: Plate, Olshausen and Co., 1871.

²Official Proceedings, Board of Public Schools, St. Louis, I (October 14, 1873), 289.

³Ibid.

⁴Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools, 1874, Appendix. St. Louis: Democrat Lithographing and Printing Co., 1875.

Tuition charges for non-residents.--In November of 1873 the board first took cognizance of the problem of non-resident pupils.¹ It was discovered that there were students attending from across the river, thus from another state, as well as students attending from communities in Missouri outside the city limits. The "Teachers' Committee" reported back two weeks later with a recommendation that "for want of room to accommodate the children of our own citizens, these from out of the State be prohibited from attending the schools under the control of this board."² The report was adopted without reference to the other class of non-resident students.

In 1875 the non-resident student problem came up again. This time the attorney for the board was asked for an opinion concerning such cases. His opinion was "that this board has no authority to furnish gratuitous instruction to the children residing outside the city limits and beyond the jurisdiction defined for it in its charter."³ The board then took action excluding such children from attending the elementary schools. Those eligible for high school were allowed to continue in attendance upon payment of a quarterly tuition fee of twelve and one-half dollars, payable in advance for each quarter of ten weeks.⁴ This is the record of the establishment of the policy of collecting tuition from individuals residing outside the district but it applied only to high school students; non-resident elementary students were prohibited from attending the city schools.

Student fees.--The only record of assessing a fee on pupils attending the St. Louis schools during Dr. Harris' administration was in the kindergarten. Since this was an added service of the schools and one which normally consumed a considerable quantity of supplies, Dr. Harris felt justified in charging the parents a quarterly fee of one dollar to cover the cost of incidentals and supplies. This left the board responsible only for providing housing and instruction--estimated to cost five dollars and seventy-six cents per pupil belonging, or about seven cents

¹Official Proceedings, Board of Public Schools, St. Louis, I (November 26, 1873), 296.

²Ibid. (December 9, 1873), p. 299.

³Ibid., II (September 14, 1875), 61-62.

⁴Ibid.

per day in 1877.¹ The fee for supplies was waived in the case of indigent families.² Dr. Harris even went so far as to suggest the plausibility of charging a fee sufficient to cover the entire cost of kindergarten if it became necessary:

In these data [the quarterly fee of one dollar] we have the key to the financial problem of the kindergarten. Should the Board find itself unable to continue the system which has borne such good results thus far, by reason of expense--it is clear that an additional fee of one dollar per quarter, making the cost to each pupil a dollar for every five weeks, would make our kindergarten self-sustaining.³

Gifts and bequests.--It is clear that Dr. Harris wanted the public schools to be free agents directly responsible to the immediate public which supported them. He aimed to avoid giving any individual, living or dead, the leverage to influence the policy or structure of the public school. "There should be no gifts or bequests for common elementary instruction."⁴

Economies of Management

The financial strain brought about by an expanding school population resulted in experimentation with numerous economies. Such measures as were adopted in any given city were usually an expression of the ingenuity of the superintendent.

Pupil-teacher ratio.--Increasing the number of pupils assigned to each teacher has been a time-honored method of reducing the cost of instruction. It was the main defense of the Lancasterian system and one of the chief obstacles to be overcome in the adoption of the graded school. Dr. Harris found economy in large schools where pupils could be closely graded. Homogeneous grouping and the assistance of supervising principals made it possible for Dr. Harris to assign from sixty to eighty children to each teacher in the primary grades.⁵ The ratio was considerably

¹Harris, "The Kindergarten," American Journal of Education, X (July, 1877), 8.

²Official Proceedings, Board of Public Schools, St. Louis, II (December 18, 1877), 404.

³Ibid., p. 405.

⁴Harris, "The Education of the Negro," The Atlantic Monthly, LXIX (June, 1892), 733.

⁵Official Proceedings, Board of Public Schools, St. Louis, I (December 9, 1873), 298.

reduced for grades above the third. It is worthy of note, however, that 52 per cent of the entire enrollment was in the two lowest grades.¹

Redistricting.--Closely related to the pupil-teacher ratio was the problem of controlling the number of pupils in attendance at each building. Shifting of population and anticipating the direction of development were matters of chance and even the most carefully laid plans for housing anticipated pupil population sometimes went amiss. In 1875 Dr. Harris found that among the St. Louis schools thirteen were overcrowded while sixteen were under-populated. As a matter of economy Dr. Harris recommended redistricting and the board authorized him in doing so "to use such means as may fill every vacant seat in the schools, and at the same time accommodate all applicants."²

Half-day sessions.--A drastic method of economizing by doubling the use of teachers and buildings was the adoption of half-day sessions. This expedient was first recommended by Dr. Harris in 1875 for the first grade only in over-crowded schools.³ Of course this scheme had been in use in the kindergarten for several years and Dr. Harris indicated in suggesting it for the first grade that Chicago had been utilizing the half-day session for several years to meet the demand for school room. In adopting Dr. Harris' recommendation the board made a provision that parents in districts where the half-day session was necessary would be permitted to send their children to other schools with full-day sessions upon application to the superintendent's office.

In the Annual Report two years later Dr. Harris devoted several pages to a discussion of the relative merits of half-day sessions for lower primary pupils. His justification included favorable quotations from superintendents of other school systems, statements of medical authorities and summaries of psychological studies on the subject.

¹Twenty-third Annual Report of the Board of Directors of the St. Louis Public Schools, 1877, p. 195. St. Louis: John J. Daly and Co., 1878.

²Official Proceedings, Board of Public Schools, St. Louis, II (April 20, 1875), 22.

³Ibid., p. 23.

In conclusion, I beg leave to submit the following points, which, I think, ought to receive support:

1. Children before the age of thirteen cannot profitably study more than half as long a time as grown men or women;
2. The most profitable arrangement of school work for such children will restrict their study in general to three hours for the younger and four and a half for the older, daily;
3. Compulsory laws fixing the period of attendance at not less than half of each year in the ordinary schools, or the whole of each year in any existing half-time schools, are a present desideratum;
4. The State should enforce these laws by its own officers;
5. Where there are masses of the poor, and the streets are full of corrupting influences, it is desirable to furnish occupation to the children both forenoon and afternoon. This may be done either by giving two short sessions of school, or by a full session forenoon and industrial teaching afternoon, or by a half-time system, when feasible.

About fifty-two per cent of the entire number enrolled in our schools are in the two lowest grades. If they were provided for in half-day sessions a savings might be effected of one hundred and fifty thousand dollars per annum in the items of real estate and improvements, wages of teachers and janitors, fuel and supplies. The afternoon could be lengthened to three hours. . . . There is no reasonable doubt that the pupils in those grades would make as rapid progress in their studies as they do at present. . . .¹

This argument was published at a time of general economic distress. Dr. Harris' statement, however, gives the impression that he advocates half-day sessions in the lower grades as a permanent policy. On the other hand, his later statements, during the next thirty years, fail to make clear the consistency of his stand on this matter.

Use of apprentice teachers.--As a matter of economy Dr. Harris justified the use of young volunteer helpers as assistants in the kindergarten, using from three to ten in the same room with a paid director and one paid assistant. Each unpaid assistant was required to "sign a written agreement to serve for a year without compensation, for the sole purpose of learning the art."² It was found very easy to secure the services of all the volunteer helpers that were needed.³

Use of women teachers.--In his second Annual Report in

¹Twenty-third Annual Report, *op. cit.*, pp. 195 ff.

²Official Proceedings, Board of Public Schools, St. Louis, II (December 18, 1877), 404-405.

³*Ibid.*

St. Louis Dr. Harris stated that the average salary per teacher was much lower than it would have been had a greater proportion of the teachers been men. At that time only 8 per cent of the corps of teachers were men.¹ In the same report Dr. Harris described the maintenance of the normal school as an economy rather than an expense inasmuch as a local supply of female teachers was assured; otherwise it would be necessary to overbid other cities to attract teachers from other training centers.²

Textbooks and supplies.--The department of supplies for the schools of St. Louis was transferred to the office of the superintendent in 1873 "for greater economy in the labor of delivering and supervising the same."³ Previous to this time it had been administered by the board secretary and bailiff.

In 1874 the Annual Report included for the first time a section on "Cost of Text Books" per child for each grade.

In the spring of 1877, and during the summer following, the Board considered ways of securing text books at lower cost to patrons.⁴ Their deliberation went through two phases. First, the board considered buying the books outright and selling them to parents at cost through the principals and teachers. They had practically decided to carry out this plan until Dr. Harris pointed out that it would require much clerical work and a large initial investment. Second, the board decided to ascertain the lowest wholesale prices which could be obtained and then allow bids to local dealers who could handle the books at a margin of 10 per cent above prices quoted to the board. This policy was agreed upon and a contract was let. In September, however, the company refused to consummate the contract because of the unfavorable publicity it had received and books were again sold by all dealers at full retail prices.⁵

¹Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1869, pp. 32-33. St. Louis: Missouri Democrat and Job Printing House, 1870.

²Ibid.

³Official Proceedings, Board of Public Schools, St. Louis, I (October 14, 1873), 289.

⁴Ibid., II (March-August, 1877), 232 ff.

⁵Ibid. (September 11, 1877), 336.

In 1878, the following year, the board returned to its original plan, purchased the books at wholesale prices and resold them at cost through the teachers. "In times of unusual financial distress like the present, this measure gives relief where it is most needed. People are prone to regard books and education as a luxury and to stint the supply of food for the mind rather than of that for the body."¹

There is no evidence that Dr. Harris considered the possibility of the board furnishing textbooks for the children without charge, nor did he consider any form of rental as a possibility.

Matching purchases.--In the provision of special equipment for the various buildings Dr. Harris and his board followed a policy which required the local school through its patrons to raise one-half the amount necessary for the purchase and the board would provide the remainder. This policy was particularly prominent in the provision of pianos for schools.² In some cases the ratio was not 50-50, with the board assuming the greater share. The practice was encouraged, however, and in some cases the board set aside money for equipment for specific schools with the provision that the schools raise a similar amount before it would be available to them.

The same policy was followed in regard to sprinkling streets in front of school buildings. The board would pay half the cost of sprinkling in front of any or all the buildings in the city provided the citizens in the neighborhood of each school paid the other half.³

Transportation of children.--An economy in school administration which Dr. Harris could not practice in St. Louis, because it was not called for, but one which he advocated strongly for rural schools especially after he became United States Commissioner of Education, was that of transporting children to union or centralized schools. In the Report of the "Committee of Twelve on Rural Education" Dr. Harris made a forceful plea for transporta-

¹Twenty-fourth Annual Report of the Board of Directors of the St. Louis Public Schools, 1878, p. 31. St. Louis: Max Ols-hausen, Printer, 1879.

²Official Proceedings, Board of Public Schools, St. Louis, I (March 28, 1871), 37.

³Ibid. (April 11, 1871), p. 40.

tion and consolidation.¹ Also, in at least four of his reports as Commissioner of Education he stresses the need for such a movement. His arguments are epitomized in the Report for 1899-1900:

In a recent movement, of which record has been made from year to year in the Annual Reports of this Office, an attempt has been made to abolish the small ungraded school and transport the children to the graded school at the nearest village or town. Inasmuch as the central school in the village can provide for a few more pupils without an additional teacher, the salary or a large fraction of the salary is saved. The transportation of the pupils furnishes a new item of expense, it is true, but this item is not nearly so large as the expense of the salary of a teacher. Hence, in the States that have adopted this transportation system, Massachusetts, New Jersey, New York, Ohio, and several others . . . find that the transportation system makes a large average annual saving in the expense of the schools, while it increases the efficiency of instruction very greatly.²

State and Federal Aid for Education

In 1890 Dr. Harris began to preach the gospel of state and federal aid to public education. In an address to the National Educational Association to the subject "The General Government and Public Education Throughout the Country" he took the stand that the chief problems of education in our country arose from the inequitable distribution of wealth in relation to the child population in the states and in the nation. He urged state aid so that the wealth of cities could be used to educate the country population. He urged federal aid "to swell the funds that shall reach the remotest country districts" especially in the states lacking wealth and urban industrial development.³

Education in the South, particularly of the negro, could not hope for general improvement, according to Dr. Harris, without state and federal aid because local communities were either too poor or improvident to support and maintain adequate public

¹Report of the Commissioner of Education for the Year 1896-97, I, xi. Washington: Government Printing Office, 1901.

²Report of the Commissioner of Education for the Year 1899-1900, I, xi. Washington: Government Printing Office, 1901.

³National Educational Association, Journal of Proceedings and Addresses, 1890, pp. 488 ff. Topeka: Kansas Publishing House, 1890.

schools.¹

The three symbols of our most advanced civilization are the railroad, the morning newspaper, and the school. The rural population everywhere is backward in its sympathies for these 'moderns. The good school is the instrumentality which must precede in order to create this sympathy. But the good school will not spring up of itself in the agricultural community. It must be provided for by the urban influence of the State and nation. By judicious distribution of general funds, coupled with provisions requiring local taxation as a condition of sharing in these funds, even the rural districts may be brought up to the standard. The State as a whole gains in wealth and² in the priceless increase of individual ability by education.

Summary and Conclusions

The management of the finances of the schools was always done in the name of the boards of education. The actual influence of the executive officer of the board, the superintendent, is not always in evidence; consequently, it is a matter of conjecture in many instances. In the case of Dr. Harris it is a matter of record that the board of education in St. Louis relied upon his judgment in financial matters to a much greater extent than was common elsewhere. For this reason board action is interpreted as being indicative of Dr. Harris' leadership. A summary statement of the principles of school finance supported by Dr. Harris is documented to a great extent by the practices of his board of education and by his statements on the subject of school finance after he became the United States Commissioner of Education.

1. The board of education should be an independent fiscal agency;

2. The relation of the superintendent to the board in financial matters should be that of a technical expert and advisor;

3. The compensation of employees should be based on a definite schedule with categories arranged according to type of service rendered, length of service, and merit of work;

4. Properties used for school purposes should be owned by the school district; rented facilities should be utilized only

¹Harris, "The Education of the Negro," op. cit., p. 733.

²Ibid., p. 735.

as a last resort;

5. Real estate belonging to the board and held for revenue purposes should be placed on the market whenever it becomes advantageous to the board to do so; a sinking fund should be established in such cases as a media of accounting;

6. Non-resident elementary pupils should not be permitted to attend the schools of a given district; non-resident high school students from the same state should be allowed to attend the high school of a given district upon payment of tuition at a rate established by the board of education;

7. For special services of the schools a fee should be collected from each student whenever it becomes necessary in order to maintain those services;

8. Boards of education should not look to gifts and bequests as a means of financing public education;

9. Economy should be secured by maintaining large schools, closely graded and administered by supervising principals, and with pupils taught in groups of sixty to eighty at the primary level;

10. Redistricting should be practiced as a means of securing economy--keeping full classes for all teachers and fully utilizing the physical facilities and the services of the employed personnel;

11. The half-day session should be resorted to when building space becomes inadequate and when the district is financially unable to prosecute a building program;

12. As a matter of economy apprentice teachers should be utilized on a non-pay basis as kindergarten assistants;

13. As a matter of economy a board should maintain its own normal school;

14. A large majority of women teachers should be employed because they can be employed at a much lower rate than men teachers;

15. Textbooks should be purchased by the individual but the board should manage to keep the cost at the minimum;

16. For special equipment and special services to a given school the patrons should be required to provide approximately 50 per cent of the purchase price or of the cost of the service;

17. For economy in the administration of rural schools transportation should be provided to union or centralized schools;

18. The wealth of the cities should be taxed to support education in the country;

19. The education of the South, especially of the negro, should be stimulated by requiring higher local support of schools in order to receive aid from the state.

20. Federal aid should be provided as a means of equalizing educational opportunity for all children of the nation.

CHAPTER XII

PUPIL ACCOUNTING AND ADMINISTRATIVE RESEARCH

Pupil accounting and the development of techniques in educational research, like most of the other practices in administration, evolved through a process of accretion. Needs arose and solutions were improvised. After a lapse of time, and as a result of experience, standard practices were established as normal functions of the office of superintendent. It is the purpose of this chapter to indicate the procedures which Dr. Harris advocated and practiced in the areas of pupil accounting and administrative research during the period when there were few landmarks to guide the administrator.

Records and Reports

Pupil accounting during Dr. Harris' era consisted very largely of quantitative data. The emphasis was on group or mass instruction; psychological research had not developed to the point where individual differences were given much consideration. The qualitative aspect of pupil accounting was thus deferred largely to the twentieth century. The quantitative period, however, had many problems of its own to settle and Dr. Harris was a moving figure in securing general agreement among educational authorities as to the terminology, the methods and procedures, and the purpose of pupil accounting. Since compulsory education was not the mode even the quantitative statistics dealt only with pupils in attendance and left no clear picture of the service of the schools to the entire child population of the school district.

It was a definite duty of the superintendent to prescribe what records were to be kept, their form, and what reports were to be made. This was necessary, in the opinion of Dr. Harris, because it is the responsibility of the superintendent to know the trends and to indicate the needs for reform or change.¹

¹Wm. T. Harris, "City School Supervision," Educational Review, III (February, 1892), 168.

Two aspects of educational reports in general were emphasized by Dr. Harris as being vitally necessary. First, reports should agree as to terminology and as to bases for statistical data so that comparison could be made between districts and cities. Second,

I do not consider a report complete in any sense which does not give, besides the facts and figures, an account also of the aims and purposes of those who direct or manage the system. Without this it is impossible to read the lessons contained in the statistics presented. So far as possible therefore the meaning of the facts and figures should be sought out and discussed in the light of the ideas which lie at the basis of the public school system.¹

Attendance reports.--In 1871 Dr. Harris placed before the National Educational Association a resolution calling for a committee to formulate a system of attendance record-keeping which would secure a desirable uniformity of such statistics throughout the nation.² With his resolution Dr. Harris included a detailed analysis of the inadequacies of the system then in vogue and suggested a more logical procedure. A committee was appointed with Dr. Harris as chairman. During the following school year the method of attendance record-keeping suggested by Dr. Harris was tried out in St. Louis, Chicago, and Cincinnati. At the next session of the National Educational Association Dr. Harris reported:

The plan proposed recommended that in all cases of absence from school, whether with intention of returning or not, whether the absence be occasioned by sickness or other causes, including suspension of pupils, but excepting solely the case of transfer to some other school in the same system, that the pupil's name be kept on the roll as belonging for three whole days, and dropped uniformly in case he does not return on the seventh half-day.

In the cities above named the former method of keeping such records was in some cases continued for disciplinary and other purposes. The advantages gained by the adoption of the new system consist wholly in the absolute reliability of its results, for comparative reasons. No margin has been left for any arbitrary construction on the part of the teacher, or for differences on account of strictness or laxity of discipline. . . .

¹Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1871, p. 11. St. Louis: Plate, Olshausen and Co., 1871.

²National Educational Association, Addresses and Journal of Proceedings, 1871, pp. 226-27. New York and Washington: James H. Holmes, Publisher, 1872.

Two items had been and are perfectly reliable: first, the item of average daily attendance in school; second, the item of total number enrolled for the year, deducting the number of duplicate registrations.

Your committee consider it to be desirable to keep this third item, the average daily number belonging to school, for the following reasons: (1) It shows the temporary irregularity, and indicates the strictness of discipline on the part of teachers, the moral tone of the pupils, and, to a large extent, the estimation of the community as regards the importance of the school.

(2) The total enrollment indicates the state of the more general and deeper causes lying in the social structure of the community--such, for example, as the vocations of the people, their wealth, or their political condition. . . .

Therefore, your committee recommend the adoption of the resolution above related, together with its accompanying preamble.¹

The Association voted to recommend the foregoing plan to the superintendents of the country.² The preamble referred to in the last paragraph of the Committee's report was a part of Dr. Harris' original resolution, presented the year before, in which he had analyzed the shortcomings of the out-moded system.

This account clearly establishes the fact that Dr. Harris was responsible for a reform in attendance record-keeping which established a pattern which is still in use with very few modifications in most of the school systems of the nation.

Pupil's address or residence.--The implication is clear that not a great deal of importance was attached to the records of pupil's addresses in St. Louis except when redistricting became a problem. The evidence lies in the fact that non-resident pupils were not singled out for regulatory action until 1873 when the number had grown to the point where the board had to take some action.³

It was the custom of the superintendent in St. Louis to make summary reports to the board each quarter. In 1871 the board required the superintendent to include in his second quarterly report "an estimate of the probable number of additional school

¹National Educational Association, Addresses and Journal of Proceedings, 1872, pp. 283-84. Peoria, Ill.: N. C. Nason, Printer, 1873.

²Ibid.

³Official Proceedings, Board of Public Schools, St. Louis, I (November, 1873), 296.

children for whom seats should be provided before the commencement of the ensuing scholastic year, specifying as nearly as may be the localities in which the school accommodations are inadequate."¹ In order to comply with this request Dr. Harris reported:

I took measures early in the year to have the pupils registered by the blocks in which they resided, and in January obtained reports of these items from the different schools and prepared a large city map by shading it in such a manner as to show by a bird's eye view the location of the school population and the relative density of the same.²

Technical terminology in reports.--By 1892 Dr. Harris was sufficiently disturbed by the lack of agreement on the meaning of terms used in educational reports that he succeeded in having a Committee of the National Educational Association on "School Statistics" add an appendix to their report to define many of the terms then in common use.³ Dr. Harris was the most influential member of the Committee and read its report to the Department of Superintendence. The report is important as a document in educational history and does not lend itself to condensation or summary treatment. Consequently, Appendix III of the Committee's Report is given herewith, verbatim.

Technical Terms Used in Education--Definitions
and Foreign Equivalents⁴

1. (a) School age. At which children are permitted free attendance at the public schools.
- (b) Compulsory school age. The age at which children are obliged by law to attend school in those States of the Union having compulsory school laws.
2. Enrollment. Number of different pupils enrolled (or entered) on the school registers during any given year; or, in other words, the entire number of different pupils who have attended at any time during the year.
3. (a) Attendance. Number of pupils present (on any given day or at any given time).
- (b) Average attendance. Average number of pupils attending each day or session.

¹Sixteenth Annual Report, op. cit., p. 14.

²Ibid.

³National Educational Association, Journal of Proceedings and Addresses, 1892, pp. 729-43. New York: J. J. Little and Co., 1893.

⁴Ibid.

4. (a) School year. The year, or period of twelve months, for which school officials are elected, appropriations of money made, teachers hired, school reports made, etc., though the annual epoch of some of these features sometimes dates from a different day than that of others.
- (b) Length of school year. The number of days, weeks, or months the school were in actual session during the school year.
5. Teacher. An instructor in an elementary or secondary school.
6. Kindergarten. A school for young children, from about three to six years, conducted after the methods of Froebel.
7. Elementary instruction. Instruction in the first principles or rudiments of knowledge, including chiefly reading, writing, spelling, arithmetic, grammar, geography, United States history, and often the outlines of natural history and science, the pupil being prepared by this course to enter upon algebra and Latin or some modern language.
8. Secondary instruction. This is supposed to begin the ninth year of the course of study, and to take up algebra, geometry, natural philosophy, physical geography, Latin, Greek, French, and German, for some or all pupils, and for a whole or a part of the four years; also an outline study of universal history, English literature, and some of the special natural sciences, as geology, human physiology, botany, etc.
9. Higher (or superior) instruction. This is supposed to take the fourth epoch of four years in a complete course of education, secondary taking the third four years and elementary education the first eight years. By topics and methods, the higher education is distinguished by taking mathematics in those branches which succeed plane geometry and elementary algebra; Latin and Greek writers that require more maturity of reflection to master, such as Horace, Livy, Tacitus, Juvenal, Cicero's moral essays, physics treated by mathematics; rhetoric; mental philosophy; the philosophy of history. In general, the studies of higher education are conducted on a comparative method--with the purpose of treating each theme in the light of all branches of knowledge. A higher institution of learning is one whose ultimate object is to give a higher education, and which therefore may or may not have a preparatory department in which instruction is given in secondary or even elementary branches.
10. (a) Special Schools. Schools of elementary or secondary grade which (1) educate for some special trade, business, or occupation (e.g., commercial colleges, art schools); or (2) educate some special class of persons (e.g., deaf mutes, juvenile delinquents).
- (b) Evening Schools. A class of special schools, generally public and located at the centers of population, designed to give evening instruction in elementary and sometimes secondary branches, general and technical, to persons whose occupation, age, or both, prevent them from attending the day schools.

- (c) Evening high schools. Continuation schools. A class of evening schools designed more particularly to give some degree of secondary education to youths who are obliged to go to work after finishing their elementary education in the day schools.
11. Schoolhouse. A building used for school purposes, one in which instruction is given.
12. Number of sittings for study. Excluding those used for recitation purposes. Includes all seats, being total seating capacity.
13. School property. All property, real and personal, belonging to a school system (i.e., not hired or rented), and designed to be used for school purposes, including school sites and buildings, furniture, libraries, apparatus, etc.
14. Salary (or wages) of teachers. The sum paid to teachers weekly, monthly, or annually, as compensation for their services. In computing the average monthly salaries of any group of teachers, weekly and annual salaries must be reduced to a monthly basis.
15. (a) Revenue. Money from any source received for school purposes.
- (b) State (school) tax. A uniform tax levied on all the property or polls of a State, the proceeds whereof is apportioned to the counties, towns, or school districts, generally according to school population or average attendance.
- (c) Local (school) taxes. County, town and school-district taxes for school purposes.
- (d) Revenue from permanent funds. The interest on invested funds, including rent of school lands, if any.
16. (a) Expenditure (school). Money expended for school purposes.
- (b) Amount paid to teachers (for salaries, including salaries of superintendents).
- (c) Other current expenditure in addition to amount paid to teachers; i.e. incidental or miscellaneous expenditure for the maintenance of the schools and care of school buildings, including, among other things, fuel, lighting, janitors, incidental repairs, free text-books if any, and stationery, cost of administration, rent of hired buildings, etc.
- (d) Permanent expenditure. Expenditure for school buildings (including permanent repairs), grounds, furniture, libraries, and lasting apparatus.
17. Permanent funds. Value of funds and other property yielding an annual revenue for school purposes.
19. Tardy. Late in arriving at school.
22. Average number belonging to a school, or system of schools, including temporary absentees. Pupils absent for sickness or other cause, but with intention of returning to school, are considered as belonging.
25. Normal school. A school designed for the professional training of persons intending to become teachers, usually maintained by a State or city.

27. Certificate; license (to teach). A formal testimony of ability to teach, or permission to teach, awarded as a result of satisfactory examination before an examining board, or after having successfully completed a certain prescribed course of study, or given other evidence of capacity to teach.
28. (a) University. As institution for higher education, having as its nucleus a college in which the so-called liberal arts are taught in a course of three or four years for the degree of A.B., and in addition one or more departments for the learned professions, medicine, law, or divinity--or it may be for advanced or post-graduate work, along any lines of learning or investigation.
- (b) College. Strictly speaking, an institution of higher education, usually with a four year's course completing preparation for the degree of A.B.
- (c) High school. A public secondary school.
- (d) Academy; institute, seminary. Names given indifferently to private secondary schools.
30. Session. A sitting of a school, or assembly of the pupils for recitations, exercises, and studies, continuing from the time the school is called to order until the pupils are dismissed beyond the teacher's jurisdiction. There are generally either one or two sessions each day.
31. Recess; intermission. Brief suspension of school exercises, recurring periodically each day, for recreation, meals or some other purpose.
32. Corporal punishment. Punishment inflicted upon a pupil's person, generally with a rod, cane, or ruler, but including a variety of other punishments, in which bodily pain is caused. Other punishments, to be discriminated from corporal, are such as are based on the sense of honor, such as deprivation from privileges of the school, confinement after school hours, requirement to sit or stand in some unusual place, enrollment on a list of disgraced pupils, etc.
33. (a) Promotion. Advancement from any grade to the next higher.
- (b) Grade; class. The body or group of pupils having the same degree of advancement, pursuing the same studies, etc.

Statistics in Education

One of the discernible life-long objectives of Dr. Harris was the organization of education, in all its phases, into a science. Many confused and chaotic areas of knowledge were analyzed and organized by Dr. Harris into orderly and systematized bodies of knowledge, namely, the course of study, the cataloging of books in libraries [Dr. Harris devised a comprehensive cataloging system which antedated the Dewey Decimal System by several years and furnished the basic categories utilized by Dewey], the

terminology and methodology of attendance records, the salary schedule, and the making of annual reports for school systems. To him it was natural to study trends, tendencies, and deviations; and he made it his business to emphasize to others in the profession the importance of this scientific attitude toward growth and change.

Importance of statistics in education.--Dr. Harris considered education [he used the term "pedagogics" frequently in this connection] as a branch of social science--an area in which "the phenomena of one province are studied in connection with those of another. . . ."¹ As a social science, education is interested in estimating the cause of social phenomena, in the nature of cause and result. The working data for such study, reasoned Dr. Harris, are social statistics.²

The importance of statistics in regard to man as a social being has been appreciated ever since civilization began. Man as a social being and man as an individual, particular person, are two very different objects. . . . For example, the single individual exists here and now in a single definite place and moment of time. He is limited in respect to size and weight, strength, hunger and thirst, ability to sustain heat and cold, youth or age, sex, health or disease, education, climate and season, conditions of weariness or vigor, and such matters. As an individual he is a very uncertain element. But by combining into social organisms he so re-enforces his finite self as a particular bodily and mental self that he wellnigh removes these limitations of time and space, and as a civilized being he becomes something general whose limitations are cancelled or annulled through participation, each man participating in the life of all men.

. . . . The state must have knowledge of the quantitative phases of its reality; social science must know the general trend or aggregate result of its minor processes--judging of its labor system by the paupers it casts ashore, its local suffering and want, the balance of its exports and imports, the means of equalizing vocations, etc., and of its condition of family nurture by the number of unfortunates produced, the deaf and dumb, insane, idiotic, blind, the orphans, its statistics of crime, etc.³

¹Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools, 1871, p. 16. St. Louis: Plate, Olshausen and Co., 1872.

²Ibid.

³Harris, "The Tenth Census from an Educational Point of View," Bureau of Education, Circular of Information No. 2, 1880, pp. 61 ff. Washington: Government Printing Office, 1880.

On another occasion, in discussing "Social Pathology in Education," Dr. Harris made the observation that since all exact science begins with quantitative measurement which involves enumeration, records of order of succession, date, duration, locality, environment, extent of influence, cases of intermittences, that these things should be fixed for education and a basis made for progress without retrograde movements--that with this foundation it would be easy to make new observations for the purpose of verifying results or to add increments to the sum total.¹

In 1901 Dr. Harris concluded that the object and purpose of statistics in education was to reveal the nature and efficiency of the powers and forces involved in a process--that forces and powers are revealed by their results. "In matters of education we inquire into the aims and purposes of the educative process, and learn this by a quantitative study of the means employed and the results obtained."²

Areas of statistics in education.--According to Dr. Harris there are four great lines of educational statistics. These areas are determined by public opinion--the desire of the people to have certain types of information. They are "(1) the attendance of pupils on school; (2) the advancement in the course of study; (3) the teaching forces and appliances; and (4) the revenues and expenditures."³

Statistics of attendance should answer questions like the following--(a) How many? (b) How long? (c) Who?

Under the second of our four chief heads we should ask for statistics regarding the course of study, and thus determine by this grade of schools as follows: (a) Kindergarten; (b) primary and grammar schools; (c) secondary education; (d) higher education.

We should ask very carefully as to the relations of these items to the first class of items, especially age, sex, and average attendance.

The third general head, "The teaching forces and appliances," includes: (1) Buildings and accommodations; (2) size of schools under one principal teacher (or else number of

¹Report of the Commissioner of Education for the Year 1889-90, I, xix. Washington: Government Printing Office, 1893.

²Report of the Commissioner of Education for the Year 1901-1902, II, 2209-10. Washington: Government Printing Office, 1903.

³National Educational Association, Journal of Proceedings and Addresses, 1891, p. 364. New York: J. J. Little and Co., 1891.

pupils per teacher); (3) number of teachers; (4) supervision; (5) means of training teachers; (6) examinations of teachers; (7) methods of discipline and instruction used by teachers.

The fourth general head, "The support of schools," includes--(1) Revenue. Items of (a) Receipts from State and local taxation; (b) receipt from funds or productive property; (c) receipts, if any, from tuition.

--(2) Expenditures. (a) For teachers' salaries, including supervision; (b) incidentals, including janitor hire, fuel, apparatus, and other current expenses; (c) permanent investments, including building and repairs. . . .

Your committee conclude their reports on statistics by offering, first, a list of the items which, in their opinion, should be collected to show the workings of a school system.

They have arranged these items in three classes. The first class includes the essential data which should be taken every year, and from all schools. This first list contains the essential and indispensable items for every annual report.

The second list contains the more important of what we may call occasional statistics, and should not be expected every year, perhaps, nor from all schools. A State superintendent may, for example, collect statistics one year regarding the place of nativity of pupils and parents, another year he may take occupations, and another year he may collect items regarding the preparation of the teaching force.

In our third list we have included still less essential items, which may be collected at still rarer intervals. . . .

I. Fundamental Items

1. Number of children of legal school age, classified by race and sex (school population): a. White males; b. white females; c. colored males; d. colored females. Note--these letters, a, b, c, d, are used in these tables always to indicate race or sex as here indicated.
2. Number of pupils enrolled on the school registers (excluding duplicate registrations), classified by race and sex a+ b+ c+ d). Note--The plus sign (+), when used, indicates that the items between which it is placed are taken separately. Thus a + b means that the white males and white females are given separately. Where this sign is omitted the items are not given separately in the reports.
3. Average daily attendance, classified by race and sex.
4. Average length of school year (days).
5. Number of teachers, classified by race and sex.
6. Number of pupils receiving kindergarten instruction, classified by race and sex.
7. Number of pupils receiving elementary instruction (including kindergarten pupils), classified by race and sex.
8. Number of pupils receiving secondary instruction, classified by race and sex.
9. Number of students receiving higher instruction, including colleges, schools of medicine, theology, law, technology, classified by race and sex.
10. Number of students in special schools, classified by race and sex, including trade schools, evening schools, commercial schools, and nurses' training schools.
11. Number of buildings used as school houses.
12. Total seating capacity of such buildings (number of pupils that can be accommodated).

13. Value of all property used for school purposes.
14. Average monthly salaries of teachers classified by race and sex.
15. Total school revenue: (1) Income from productive funds and rents, (2) State school fund, (3) Local taxes, (4) other sources.
16. Total expenditures: (1) Salaries of teachers (including supervision), (2) other current expenses, (3) permanent expenditure (for buildings, grounds, etc.).
17. Amount of permanent invested funds.

II. Less Essential But Desirable Items

18. Age classification of pupils enrolled: (1) number of pupils under 6, (2) number of pupils between 6 and 7, etc., (11) number of pupils between 15 and 16, (12) number of pupils over 16.
19. Number of cases of tardiness.
20. (1) Number of pupils born within the State, (2) number of pupils born in other States, (3) number of pupils born in foreign countries.
21. Occupations of parents: (1) Agents, (2) bankers and brokers, (3) clerks and salesmen, (4) domestic servants and waiters, (5) draymen and teamsters, (6) farmers, (7) factory and mill operatives, (8) hotel and boarding house keepers, (9) laborers (unskilled), (10) manufacturers, (11) mariners and boatmen, (12) mechanics and artisans, (13) miners and quarrymen, (14) merchants, traders, and dealers, (15) professionals, (16) public officials and employees, (17) railroad employees, (18) seamstresses, (19) salon keepers and bartenders, (20) unclassified.
22. Average number belonging, including temporary absentees.
23. Number of pupils in each branch of study.
24. (1) Average age of kindergarten pupils, (2) average age of elementary pupils, (3) average age of secondary pupils, (4) average age of higher pupils, (5) average age of special pupils.
25. (1) Number of normal schools, (2) enrollment in normal department, (3) average attendance, (4) number of teachers, (5) expenses.

III. Occasional Items

26. (1) Number of teachers who have taught less than two years, (2) number from two to five years, (3) number over five years.
27. (1) Number of applicants for teachers' certificates, (2) number who were certified.
28. (1) Number of teachers graduates of normal schools, (2) number teachers graduates of universities and colleges, (3) number of teachers graduates of high schools, academies, etc., (4) number of teachers who have received only an elementary education.
29. Number of pupils dropped and readmitted in the course of the year.
30. Number of hours in each school session.
31. Length of recesses or intermissions, and time of beginning.
32. Number of cases of corporal punishment.
33. Number of pupils promoted to next higher grade.¹

¹Report of the Commissioner of Education for the Year 1901-1902, op. cit., II, 2209 ff.

This report on the use of educational statistics Dr. Harris considered so important that he had it reprinted twice in Reports of the Commissioner of Education, first in the Report for the Year 1897-98 and again in the Report for the Year 1901-1902. Its original appearance was in the Journal of Proceedings and Addresses of the National Educational Association in 1891.

The Bureau of Education.--Many years before he became United States Commissioner of Education Dr. Harris looked upon the Bureau of Education as a most potent agency for the collection of comparative information concerning the schools of the nation. In 1871 he commented upon the valuable statistics compiled by the Commissioner of Education¹ and he made frequent use of these data in making recommendations to his board, in compiling his reports and in composing his many articles and addresses.

After Dr. Harris became the Commissioner of Education he stated, "The Bureau of Education aims to collect information, digest it, and distribute it so that each individual and institution may do its work in the light of all that is done elsewhere."²

It is clear that Dr. Harris considered the Bureau of Education primarily as a statistical agency. During his incumbency his chief effort was directed to the compilation and interpretation of exhaustive data of every kind that he thought would be of value to those in the directive offices of education in this country and abroad.

Practical use of statistics in education.--Dr. Harris was not content to stop with a philosophical analysis of educational statistics. He also set a pattern of practical use of such statistics which was considered a model for school administrators everywhere for many years.

In 1872 Dr. Harris made an address to the Missouri State Teachers Convention which the State Superintendent of Public Schools included in his Seventh Annual Report. In this address, "The Public Schools as an Institution of Civil Society and the State," Dr. Harris relied on voluminous statistics to prove two major premises, (1) that public schools increase the means of production and (2) public schools reduce crime and protect society

¹Seventeenth Annual Report, op. cit., p. 16.

²Harris, "Our Educational System: What It is; Why It Is; What It Accomplishes," The Chautauquan, XV (April, 1892), 20.

from the growth of a criminal class.¹

Dr. Harris included in his Twentieth Annual Report of 1874 a section on "School Hygiene" in which he not only quoted numerous authorities and reports but he also gave a summary of a survey made in the St. Louis schools relative to problems of hygiene. He itemized, tabulated, and interpreted statistical evidence concerning (1) pupils who study at home, (2) pupils who do not study at home, (3) number of minutes per day studied at home by the average student in each of the seven grades, (4) number of those studying at home who suffer at times from bad health, (5) total absence of that half of the school population that studies most at home, and (6) total absence of the half that studies least at home.²

Throughout his series of Annual Reports in St. Louis Dr. Harris gave much attention to trends of various kinds: enrollment at various levels, occupations of parents, birthplaces of pupils and similar subjects. A typical excerpt is quoted from the Annual Report of 1875; the excerpt follows a table showing "Occupations of Parents";

An increase over last year is observed in the enrollment of the children of mechanics, clerks, draymen and teamsters, artists and professionals, while there is a corresponding decrease in that of children of farmers and gardeners, butchers and common laborers. This is to be explained, partly by the fact that last year's statistics were based upon the enrollment within the extended limits, which include the population in the suburbs. The steady decrease of boatmen is to be observed--keeping in pace with the decline in relative importance of the river interests of St. Louis. . . .

In twelve years boatmen have decreased from 1 in 18 to 1 in 50 of our population. On the other hand there has been an increase in clerks from 1 in 30 to 1 in 22; draymen and teamsters from 1 in 37 to 1 in 24; common laborers from 1 in 10 to 1 in 8.5; manufacturers from 1 in 21 to 1 in 13; saloon keepers from 1 in 60 to 1 in 40. . . .

Within twelve years the ratio of native born St. Louis children has increased from 55 per cent to 68 per cent; the ratio of those born in Missouri outside of the city, and of those born in the South, remains the same; of those from the Middle and Eastern States, always small, had decreased one half; that of those from Great Britain, Ireland, and Germany, remains the same. This however, affords no clue to the real

¹Seventh Annual Report of the Superintendent of Public Schools of the State of Missouri, 1872, pp. 75-82. Jefferson City: Regan and Carter, State Printers, 1873.

²Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools, 1874, pp. 106 ff. St. Louis: Democrat Lithographing and Printing Co., 1875.

diversity of stock in our population. Only one in three of our population is descended from parents both of whom were born in America. 24 per cent of our people were actually born in Germany and Austria; 13 per cent in the British Empire. In 1858-59, of the children enrolled in our schools 18 per cent were actually born in foreign countries; now the ratio is 6 per cent indicating a great decrease of the immigration of families from Europe to this city.¹

Use of the Survey Technique

It was natural, perhaps, that a research-minded individual should utilize the survey method to secure data on various problems. It is an accepted procedure in modern school administration but it was a procedure almost unprecedented in educational circles when Dr. Harris began to demonstrate how effectively it could be used. His survey studies were not the counter-part of those later sponsored by the Russell Sage Foundation and the General Education Board but they might well be considered as their forerunners.

Jesse B. Sears credits Dr. Harris with being one of the forebears of the Survey Movement:

When William T. Harris was made Commissioner of Education . . . Congress again requested a study of the schools of the District of Columbia. The investigation in this instance was much less pretentious and was reported in a fifteen page pamphlet. In both these investigations the congressional order was worded very much as an order would be worded today if Congress wished a survey of the schools.

In the course of his regular duties in this same year 1892 Commissioner Harris investigated the two questions: why is the school term growing shorter in the cities of the United States, and why have costs increased by 8.96 per cent when school population has increased but 4.86 per cent? While this type of work was not entirely new in the history of the bureau it was of an advanced type and indicates a growing conception of how to introduce scientific method into the statistical work of the bureau.²

Dr. Harris' surveys in general, may be characterized as procedures which collected all available, pertinent opinions, and data on a given subject, the summary and conclusions of which he utilized for his own purposes. They were attempts to secure

¹Twenty-first Annual Report of the Board of Directors of the St. Louis Public Schools, 1875, pp. 24-26. St. Louis: Globe-Democrat Job Printing Co., 1876.

²Jesse B. Sears, "The School Survey Movement," Modern School Administration, ed. by John C. Almack, p. 225. Boston: Houghton Mifflin Company, 1933.

objective data, usually substantiated, however, by authoritative opinions of experts in those instances where such statements were available.

Objects of inquiry.--In a report to the National Council of Education on "Method of Pedagogical Inquiry," Dr. Harris proposed "four great provinces of pedagogical inquiry, each capable of endless subdivision and specialization. . . ." These were:

1. The Course of Study;
2. The Method of Instruction;
3. The Mode of Discipline;
4. The Plan of Organization--"the management which looks to (a) the location of schools; (b) style of buildings; (c) regulations of admission relating to ages, sex, and other qualifications; (d) length of school sessions, annual and daily; (e) mode of providing for the support and government of the schools by school-boards, supervising officers, teachers, etc."¹

Local use of survey method.--For the guidance of the board of education in St. Louis in locating ward boundaries and school buildings a large map was prepared each year by the superintendent to show the residence of the school population by blocks.²

During the depression year of 1877 when every public institution was challenged to show its usefulness and its right to exist, the high school was subject to frequent questioning by both the wealthy and the poor. Dr. Harris proceeded to answer their questioning by proving that both groups were served in large numbers:

. . . . It is somewhat singular that the wealthy should oppose free high schools on the ground that the poor have no right to have their children educated at public expense in anything higher than the primary branches of education, and at the same time the laboring classes of the community should oppose free high schools on the ground that they are an aristocratic institution for the wealthy, who alone can afford to use them. I have analyzed the table of occupations in order to show the representation of the different classes of our community in our High Schools. There are children of

¹National Educational Association, Journal of Proceedings and Addresses, 1885, pp. 493-94. New York: J. J. Little and Company, 1886.

²Official Proceedings, Board of Public Schools, St. Louis, I (January 13, 1874), 308.

Merchants	286
Professional men (lawyers, doctors, teachers, &c.)	170
Agents.	86
Clerks.	77
Artists	12
Public Officers	38
Boarding-house Keepers, Victuallers, Saloon- Keepers.	25
Boatmen	8
Butchers.	9
Draymen and Teamsters	13
Day Laborers.	22
Gardners and Farmers.	24
Mechanics	164
Seamstresses.	23
Washerwomen and Laundresses	4
Manufacturers	61
Unclassified.	235

Probably about one-third of the number enrolled in the High Schools may be children of wealthy parents, and the remaining two-thirds of parents not wealthy, and at least half of whom could not afford the means to pay tuition.¹

Visitation of other cities.--The sending of the superintendent to make personal surveys of other school systems was a common practice in many of the larger cities. Such surveys were largely inspection tours but they did result in an interchange of much valuable information concerning experiments and innovations. In 1872 the St. Louis Board granted a leave of absence of two weeks to Dr. Harris and the assistant superintendent, Mr. Soldan "for the purpose of visiting the schools of Cincinnati, Oswego, Cleveland, New York, and Boston, and of inquiring into their state and the methods of instruction in use there, and of comparing the same with the state of our own schools. . . ."² Their expenses were paid by the board. In the length of time allowed it is inconceivable that more than a day could have been spent in each system. Upon his return Dr. Harris reported his observations to the board under four headings: school architecture, discipline, reasons for differences in systems, and instruction. His concluding remarks are illuminating:

I find features of great excellence in the school system in each of the cities that we visited, and think that while

¹Twenty-third Annual Report of the Board of Directors of the St. Louis Public Schools, 1877, pp. 48-49. St. Louis: John J. Daly and Company, 1878.

²Official Proceedings, Board of Public Schools, St. Louis, I, 155 and 160.

our own system may reasonably claim its share of superior characteristics, that we may profit by a careful study of our neighbors. It is of no use to adopt without criticism features from abroad. We must be convinced that the same necessity exists here before we copy a method that seems to form a great excellence in the system of another city. We cannot transplant the banana tree to our garden, although it flourishes in those of Havana. But by a deeper analysis of the peculiarities of our situation and elements of society, we may find that problems that have long occasioned us much trouble may be successfully treated on the plan discovered in other places.¹

Use of comparative analysis.--During the years Dr. Harris was Commissioner of Education he made a number of studies or compilations of statistics on a nation-wide or sampling basis which were of the nature of surveys. In 1889 he was responsible for including a chapter in the Annual Report on "City School Systems" which gave comparative data on such items as value of school property, cost of tuition, school enrollment, salaries of teachers, and similar details.²

In 1894 Dr. Harris had a chapter on "Teachers' Pensions" prepared for the Annual Report. The chapter was compiled from data collected from school systems which had set up retirement plans and annuity benefits for teachers.³

The following year, 1895, a survey chapter was included on "The Constitution and Powers of City School Boards" which analyzed the government of school systems in twenty-three cities, selected to include the principal types of organization that existed in the country at that time.⁴

Summary and Conclusions

It is well-nigh impossible to detect the exact progenitor of many of the practices and procedures now common in the phases of educational administration known as child accounting and research. It is possible, however, to establish the identity of

¹Ibid., pp. 166-67.

²Report of the Commissioner of Education for the Year 1889-90, op. cit., I, xx.

³Report of the Commissioner of Education for the Year 1894-95, I, xxii f. Washington: Government Printing Office, 1896.

⁴Report of the Commissioner of Education for the Year 1895-96, I, xxvi. Washington: Government Printing Office, 1897.

some of the individuals who nurtured, fostered, and promoted certain concepts and procedures to the point where they became generally adopted as standard practices. Dr. Harris was one of the men who had definite ideas concerning the ultimate form and methodology of education and one who did not hesitate to espouse their general acceptance. The practices and principles in pupil-accounting and educational research which Dr. Harris advocated may be listed as:

1. Pupil accounting should consist largely of quantitative records and reports;
2. Records and reports should be accumulated primarily for administrative purposes;
3. The superintendent should be responsible for determining what records are kept, their form (when there is local option), and what reports are made to the public;
4. Reports should embody two features under all circumstances: (1) Standard terminology and standard basis for statistical data should be used so that accurate comparisons may be made between systems, and (2) the meaning and significance of the data should be interpreted in the light of stated aims and purposes of the administration;
5. The superintendent should rely on statistical studies to detect trends, tendencies, and deviations in the system for which he is responsible and should refer to statistical reports to keep informed as to the trends in education on a national and international scale;
 - a. Education should be considered a social science whose permutations and inter-relationships are revealed by a study of social statistics;
 - b. The terminology of statistical studies should be standardized to facilitate analysis and comparison;
 - c. The nature of the adult and school population of the city school district should be the subject of frequent statistical studies;
 - d. The decennial Federal census should be an object of interest to every school administrator;
6. The survey technique should be utilized in the making of comprehensive statistical studies;
 - a. The objects of inquiry in a survey should be classified under four heads: (1) The course of study, (2) The method of instruction, (3) The mode of discipline, and (4) The plan of organization and administration;

7. Administrators should make inspection tours of other comparable school systems in the interest of keeping abreast with current developments;

8. The Office of Education should concern itself largely with the collection, tabulation, interpretation, and dissemination of statistical data secured from the school systems of the nation at large.

CHAPTER XIII

AN EVALUATION OF THE CONTRIBUTIONS OF WILLIAM T. HARRIS TO EDUCATIONAL ADMINISTRATION

To evaluate properly the contributions of one man among hundreds engaged in similar enterprise requires considerable caution. Much that has been written concerning the work of William T. Harris since his passing has been of an eulogizing nature--deserved tributes undoubtedly, but of questionable value as objective measures of his impact and lasting influence on an evolving social science, on public education, and on an emerging profession, public school administration.

The true measure of Dr. Harris' contributions to American education must be sought in the record of his interpretations of contemporary educational problems, in his orientation of significant elements at issue, in his proposals for improvement, and in his experiments in implementing those proposals. These factors must be considered in the light of their general acceptance or rejection, in whole or in part, by the mature institution and profession, the modern American educational system, and educational administration of the present era.

Determining the Nature and Control of Public Education in America

While it is true that the public schools of the United States are largely indigenous and the product of the American environment there was a period when they were somewhat vulnerable to foreign influence. Many prominent educators of the nineteenth century, including Victor Cousin, Calvin E. Stowe, Henry Barnard, Benjamin F. Smith, and Horace Mann, had studied at first hand the educational systems in the various countries of Europe. The superior organization and methodology of the schools of Prussia had created a favorable impression on these visitors. It is generally conceded that the normal school movement in America gained new impetus when the reports of these investigators publicly extolled

the pedagogical excellence of the Prussian instructors. Stimulation was given to grading and classification of students and there is some evidence that the movement for state school systems, with state oversight and control, grew out of these reports.¹ Oral instruction, after the Prussian model, had many proponents in America, including Horace Mann.

It may be a coincidence that the aspects of Prussian education which were abhorrent to Dr. Harris received little consideration in American education; nevertheless, it is worthy of record that he was opposed to a two-class school system, to a national system of education, to the termination of the common school at the end of the eighth grade, to oral instruction as the standard method, and to a curriculum which denied the "cultural" subjects to any child.

Dr. Harris held that any school system which tended to produce class distinctions or which regimented the thought and actions of its population was inimical to democratic society. On the contrary, he believed that education in a democracy should implement equality of opportunity for all, should provide all citizens with adequate political and economic intelligence to perform their civic duties, and should result in the creation and preservation of property and wealth.

In line with the democratic ideal, Dr. Harris looked upon the individual as the unit of value rather than the State--that given ideal citizens (as products of the public schools and other educating institutions) the ideal State would evolve naturally. All individuals were to be given the advantages of a cultural education preparatory to any station which they might attain in a mobile society. The latent talents of each individual were to be nurtured into fruition through the influence of the public school. Particularly, the leaders of the American society were to arise by virtue of natural "directive power" rather than by virtue of birth and circumstance. Probably at no other point in his educational philosophy did Dr. Harris' professed Hegelian idealism have so direct an influence on his interpretation of what public education should be in America.

It was gratifying to Dr. Harris that the movement for a

¹Ellwood P. Cubberley, Public Education in the United States, pp. 365-66. Boston: Houghton Mifflin Co., 1934.

national system of education never gained much headway in America. He was a life-long advocate of local control for each school system. He had little to say on the subject of state control except in regard to the establishment of minimum standards. He favored both state and federal subsidies, however, to supplement local funds. His idea of a local district was an area large enough to populate and to support an efficient, graded school unit. This was his only qualification to the principle of local control. Where the original district was found to be too small for the support of an efficient school he advocated consolidation of districts and transportation of the children. This was a prominent feature of his administration as United States Commissioner of Education.

In defining the agency for local control Dr. Harris advocated a fiscally independent school board of laymen. For city school systems he favored popular election of a board member from each city ward. Toward the end of his career he indicated tentative approval of a smaller board elected at large but he was not convinced of the effectiveness of such a board because it tended to remove the board member too far from his constituency.

Dr. Harris developed the thesis that the activities of the board of education should properly be confined to policy making while the actual administration and supervision of the schools should be delegated to a professional superintendent of schools. The superintendent should be charged with the responsibility for carrying out the policies laid down by the board, for keeping the board informed as to developments and trends within the school organization, and for educational leadership in the community.

Casting the Form of Public Education

The conservative bent of Dr. Harris' thinking is most evident in his espousal of the graded system as the ultimate form of elementary school organization; the four-year high school and the four-year college were defended as the most perfect extensions of the common school and he believed that variations to this arrangement were unwarranted. With the addition of the kindergarten as the base of the public school system the vertical pattern he advocated took an arbitrary K-8-4-4 form with post-graduate technical training a desirable terminus to formal schooling.

Articulation of these segments was to be achieved by the lower school in each case meeting the requirements of the higher level. Thus the higher levels were expected constantly to exercise an elevating influence on the subordinate levels. The written examination was conceived as the only acceptable measuring device to screen those desiring admission to a higher level. The examination was considered a proper screening instrument of the higher institution.

It is possible that Dr. Harris' adamant stand in favor of the K-8-4 plan may have rendered a disservice to American education. He was more concerned, however, that vocational and technical courses should not displace those of a cultural nature which he considered basic to a general education. He was definitely on the defensive lest the pressure of big business, both trade and industry, should force the public school into the role of apprentice-training institutions. He was convinced that such a pressure existed and it is possible to infer that his resistance to change was a blocking measure to prevent an opening for such a movement to influence the curriculum. It is more likely, however, that his attitude grew out of his philosophy and out of his belief that all children should profit by the same basic or fixed course of study.

It should not be over-looked that Dr. Harris endorsed the proposition to down-grade some of the traditional secondary courses, notably the languages and algebra, to the last two years of the elementary school. The general effect of such a measure was in the direction of liberalizing the upper two years of the secondary school.

It is problematical as to how much Dr. Harris influenced the form of public education in America, but there is no doubt as to the direction of his influence. He failed to see the need for change or modification of the existing form because the ideal curriculum, as he visualized it, required no further adaptation of the structure.

Determining the Curricular Offerings of the Public Schools

It is generally conceded that one of Dr. Harris' greatest contributions to American education was his definition of the public school curriculum, although here again he is criticized in

some quarters as being too conservative. His philosophic mental set led him to two basic criteria for determining what should be included in the curriculum: (1) What knowledge, skills, and appreciations are needed by the individual for a satisfying life? (2) What knowledge, skills, and appreciations are needed by the citizen to perpetuate the American ideal of government and the American way of life?

On the subject of moral education, one of the burning issues of the day, he made a complete break with religious or sectarian doctrine. While upholding religion as fundamental to wholesome living he held that moral or ethical traits in the individual should grow from rational experience rather than from ecclesiastical dogma.

Dr. Harris studied adult life and the accumulated knowledge of the race to ascertain what the child should be taught in school. School, in his thinking, was very largely preparation for adult living and he prescribed a common basic training for all. In spite of his experience with the short-lived "intermediate schools" he failed to recognize that a large segment of the youth population is not academically minded--that the purely cultural curriculum did not meet their needs. While he acceded to the pressure for a multiple course of study in the St. Louis high school he was convinced that it was a departure from the ideal. He was more concerned that the child should conform to the school than that the school should adapt its services to the needs of the child. The knowledge and skills to be mastered were of primary importance, the nature and psychology of childhood was secondary and was recognized largely in terms of gradation of subject-matter.

Where there had been limited application of philosophy to education in America Dr. Harris filled that void. His conclusions, although not completely in accord with modern educational philosophy, formed a basis upon which modern concepts could evolve and grow.

Organizing the Curriculum for Teaching Purposes

Dr. Harris' genius for organization and system is nowhere more apparent than in his formulation of courses of study. The classic example is his organization of the science course of study--embodying what he conceived to be the essential elements of this knowledge adapted, as he thought, to the maturity of the

child and to the seasons of the year. The cyclical treatment of subject matter was brought forcibly to the attention of educators. "Understanding" was his goal in substantive subjects in direct opposition to the object-lesson type of instruction which was the vogue of the times.

One of Dr. Harris' earliest experiments was with the phonetic method of teaching reading and to him must be given considerable credit for popularizing this system of instruction in primary reading.

A valid criticism may be made of the faulty psychology upon which Dr. Harris based his concept of learning. It is clear, however, that he recognized the inadequacy of knowledge concerning the learning process. It was in this spirit that he welcomed the child-study movement.

In most respects Dr. Harris was not a conservative in curricular matters. He advocated constant evaluation and revision of courses of study in the light of accruing knowledge in the area of content and in respect to newly acquired insight into the nature of the child and the psychology of learning. He took particular pleasure in pointing out that the work of the Committee of Ten had ushered in an era of curriculum appraisal and revision. The popular conception of Dr. Harris, however, is that he was an ultra-conservative because he insisted upon a cultural curriculum for the secondary school with emphasis upon Latin and theoretical mathematics, and because he opposed the introduction of practical arts courses as substitutes for cultural subjects. It is generally overlooked that he is greatly responsible for the introduction of science instruction into the common school curriculum and that he was critical of the Report of the Committee of Ten because the science subjects, physics, chemistry, botany, and zoology, were omitted from their list of recommended high school courses in the classical course of study.

In adapting Froebel's private kindergarten methods to public school use Dr. Harris initiated a movement which eventually liberalized the methods of instruction in the elementary school. Thus the era of the "child-centered" school may have been hastened although it was distinctly a by-product of the kindergarten so far as the influence of Dr. Harris was concerned.

Gradation of Pupils

In Dr. Harris' theory of grading and classifying pupils lies further evidence of a progressive trend of thought. Frequently he expressed his abhorrence of tying the course of study to the calendar, applying children to a Procrustian bed, for purposes of grading. He recognized that children learn at different rates of speed and advocated a system which could be adapted to both fast and slow learners. His concept of classification of pupils was geared to a quarterly system of promotion instead of an annual system. Not only did he advocate such a system but he demonstrated to his own satisfaction that such a program was feasible. The fact that he secured practically no converts to his quarterly system of promotion is rather conclusive evidence that it had basic faults which outweighed its usefulness.

The use of written examinations to determine eligibility for secondary and higher education was the order of the day. It was the only evaluating device known at the time. Recognition of diplomas and credits as evidence of scholarly attainment awaited the day of standardizing agencies. These came at the close of Dr. Harris' career but not soon enough for him to recognize their efficacy. Thus it is that he goes on record as upholding the sanctity of the entrance examination for both high school and college. During the forty years since Dr. Harris left the educational scene the Carnegie unit has become the common basis for evaluating the fitness of candidates for college. More recently the trend is back to entrance examinations. Although the modern college entrance examination is a more scientific instrument, its growing popularity tends to justify the original stand taken by Dr. Harris.

Supervising Instruction

Dr. Harris' ideas concerning methods of instruction reflected a careful analysis of the concomitant elements involved--the pure psychology of learning, the importance of the learning environment, the personal attributes of the teacher, the organization of subject matter, and the factor of pupil control or discipline.

In his interpretation of the learning process Dr. Harris anticipated some of the later revelations of experimental psy-

chology. He recognized the need for the adaptation of school procedures in the areas of maturation, motivation, and habit formation. With no objective data to substantiate his argument he observed that the capacity factor was one of the most important and difficult elements with which teachers had to deal.

While Dr. Harris did not originate the position of the supervising principal, he helped to popularize it by proving that it was an administrative necessity and one which made for much greater efficiency of management and of instruction.

He defined the role of the superintendent as a supervisor as distinguished from that of the administrator and demonstrated that the superintendent could delegate to subordinate administrative officers the authority to supervise instruction while retaining the responsibility for supervision as a prerogative of his office. This was an important development in the direction of maintaining unity of organization and policy in the gangling, urban school organizations which evolved during the decades following 1875.

Dealing with Teacher Personnel

The factors which Dr. Harris considered important for the maintenance of high morale among teachers were: (1) an assurance that local teachers properly prepared would receive preference in appointment; (2) an adequate beginning salary based on the average per capita income of workers in the nation; (3) a graduated salary schedule with increments based upon length of service and excellence of work; (4) opportunities for promotion as rewards for excellence; and (5) provision of benefits in the nature of sick leave with pay and leaves of absence with reasonable assurance of re-employment.

A valid criticism of Dr. Harris' personnel policy was his discrimination against women in the provisions of his salary schedule. Few men spoke with more praise of the woman teacher and with more appreciation of the rise of women in social and public affairs but this approbation was not reflected in his salary schedule for women teachers. It was evident however in his salary schedule for women principals and supervisors.

The salary policy which he sponsored was a far cry from the "single-salary schedule" although it incorporated at least one noteworthy feature, a special, higher-pay bracket for teachers

of the first or entering grade as compensation for the skill and patience required at that particular level.

In-service growth of teachers in Dr. Harris' scheme of things was to be secured by their participation in literary societies and by Saturday institutes directed and staffed by principals and normal school instructors with occasional general meetings at which times the superintendent would address them on professional or cultural subjects. Teachers were advised to fill their leisure hours with study of the arts and sciences. Summer school courses and evening classes at the college level had not yet made their appearance but Dr. Harris measures to improve teachers in-service were somewhat in advance of the times.

Planning School Buildings

Dr. Harris was fortunate in being superintendent of schools in a school district with independent fiscal power. This circumstance gave him and his board the opportunity to work directly on their school housing problems without interference from other fiscal or civil bodies. The application of scientific method in locating, planning, and constructing school buildings is a distinct achievement of his administration. Surveys of the extent and direction of population growth were used to determine the proper location of new buildings. Projected new buildings were built by sections, a new section being constructed each time the growth of population made it necessary, until the entire unit was completed.

Improvement in facilities were incorporated in new buildings on the basis of research and experience. Innovations in other cities were studied and utilized when their adoption proved desirable.

Great concern was taken by Dr. Harris to provide proper lighting, heating, and ventilation for every classroom. It was largely the provision of these three factors in their most advanced form which led Dr. Harris to favor the twelve-room, three-story, square Quincy school of Boston as the model for new buildings under his jurisdiction. No innovation or improvement of facilities was allowed to interfere with the architectural outline of the adopted model. Interior changes were allowable--one noteworthy modification being the kindergarten room in such a building. It was designed as a room double the size of ordinary

classrooms.

The introduction of small tables and chairs as equipment for the kindergarten initiated a practice which has spread up through the primary grades and into higher levels. In the light of recent theory it is to his credit that Dr. Harris did not advocate such seating for classrooms other than the kindergarten.

Managing School Finances

In the area of school finance it is difficult, if not impossible, to establish which practices and policies of Dr. Harris were original and which were borrowed or adapted from other school systems or other fiscal agencies. It is true, however, that the St. Louis board of education, under his leadership, was one of the first of the large city boards to adopt a salary schedule.

Research indicated to Dr. Harris that school districts could ill afford to rent buildings for school purposes; that it was more economical in the long run to buy the site and build a standard school building.

The sale of district-owned, income-producing properties to meet current and anticipated expenses was inaugurated as a policy when the cost of needed school housing out-ran the income from ordinary tax revenues. Along with the sale of such properties came the establishment of a sinking fund as an accounting device for such funds.

The collection of tuition from non-resident high-school students and the exclusion of non-resident elementary pupils from the St. Louis schools, while not an innovation, strengthened and clarified the discretionary power of boards of education as policy making agencies.

Pupil Accounting and Research

Among Dr. Harris' contributions to pupil accounting, one that stands out preëminently is his campaign to standardize the terminology and procedures to be used. He, personally, was largely responsible for the general adoption of the category of "pupils belonging" in attendance reports and the practice of dropping pupil's names from the roll after three whole days of absence. No special merit was claimed for this particular system

except that it was one procedure upon which all systems could agree in order to make their attendance statistics comparable. Dr. Harris' concern with agreement on nomenclature in educational matters was a life-long obsession but there were two periods in which he made national issues of it in professional circles. In both instances, 1872 and 1893, he succeeded in having the National Educational Association appoint major committees to investigate and to report on the problem, and it was Dr. Harris who energized both committees.

Although other educators had made considerable use of statistics, notably Horace Mann and Henry Barnard, it remained for Dr. Harris to define "social statistics" as the working data for estimating the cause of social phenomena--thus a prime medium for the work of the school administrator. The use of statistics to determine trends and to detect variations was one of the features of his celebrated annual reports. His influence thus accentuated the movement to utilize objective evidence rather than to rely on empirical opinion to determine administrative policy.

Dr. Harris defined the areas of statistics in education and set up categories and groupings which have since become standard in statistical enumeration in education. He is generally credited with introducing scientific method into the statistical work of the Bureau of Education. In the geneology of the Survey Movement it is not difficult to detect the influence of Dr. Harris. He refined and perfected the voluminous statistical pattern of Henry Barnard into a logical, systematic, analytical treatment. Later surveys thus became elaborations of the pattern which Dr. Harris bequeathed to the profession.

Conclusion

A study of the record of William Torrey Harris in American education reveals a school administrator whose vision far exceeded temporal exigencies. His analysis of all problems went back to fundamentals and his recommendations envisaged an ultimate ideal. He looked upon the public school, kindergarten through the university, as the most potent agency to elevate the common man to a stature approaching perfection and as the only means to implement the inherent ideals of the American form of government.

The school administrator was set forth as the educational

expert and the liaison agent between the profession and the laity. Thus the superintendent was represented as the exponent of each element; neither could advance without the other. The superintendent was to be both a servant and a leader of society; his duty was to analyze the needs of his people and to guide them to amelioration through rational processes.

BIBLIOGRAPHY

Books

- Almack, John C. Modern School Administration. Boston: Houghton Mifflin Co., 1933. Pp. x + 382.
- Barnard, Henry. American Educational Biography. Syracuse, N.Y.: C. W. Bardeen, 1874. Pp. 526.
- Barnard, Henry. School Architecture or Contribution to the Improvement of School Houses in the United States. New York: A. S. Barnes & Co., 1848. Pp. 383.
- Caldwell, O. W., and Courtis, S. A. Then and Now in Education, 1845-1923. Yonkers-on-Hudson, New York: World Book Co., 1924. Pp. 400.
- Cubberley, Ellwood P. Public Education in the United States. Boston: Houghton Mifflin Co., 1934. Pp. xciii + 752.
- Curti, Merle. The Social Ideas of American Educators. New York: Charles Scribner's Sons, 1935. Pp. xxii + 613.
- A Cyclopedia of Education. Edited by Paul Monroe. "William Torrey Harris." Vol. III, pp. 219-20. New York: Macmillan Co., 1912.
- Dewey, John. The Educational Situation. Chicago: University of Chicago Press, 1902. Pp. 104.
- Dexter, Edwin Grant. A History of Education in the United States. New York: Macmillan Co., 1904. Pp. xx + 656.
- Education in the United States. Edited by Nicholas Murray Butler. Chicago: American Book Co., 1910. Pp. xviii + 464.
- Finney, Ross L. The American Public School. New York: Macmillan Co., 1921. Pp. vi + 335.
- Gilliland, Thomas McDowell. The Origin and Development of the Power and Duties of the City-School Superintendent. Chicago: University of Chicago Press, 1935. Pp. xiv + 279.
- Greenwood, J. M. Principles of Education Practically Applied. International Education Series. New York: D. Appleton & Co., 1901. Pp. xxi + 199.
- Harmon, Frances Bolles. The Social Philosophy of the St. Louis Hegelians. Ph.D. dissertation, Columbia University, New York, N.Y., 1943. Pp. 1 + 112.
- Harris, W. T. Psychologic Foundations of Education: An Attempt

- to Show the Genesis of the Higher Faculties of the Mind. International Education Series. New York: D. Appleton & Co., 1899. Pp. xxxv + 400.
- Heck, Arch O. Administration of Pupil Personnel. Boston: Ginn & Co., 1929. Pp. xx + 479.
- Knight, Edgar W. Education in the United States. Boston: Ginn & Co., 1929. Pp. xi + 588.
- Mansfield, Edward D. American Education, Its Principles and Elements. New York: A. S. Barnes & Co., 1851. Pp. 330.
- Misawa, Tadusa. Modern Educators and Their Ideals. New York: D. Appleton & Co., 1909. Pp. vi + 304.
- Monroe, Paul. Founding of the American Public School System; A History of Education in the United States. New York: Macmillan Co., 1940. Pp. xiv + 520.
- Moore, Ernest Carroll. Fifty Years of American Education. Boston: Ginn & Co., 1917. Pp. 96.
- Parker, S. C. A Textbook in the History of Modern Education. Chicago: Ginn & Co., 1912. Pp. xxiv + 505.
- Pickard, J. L. School Supervision. International Education Series. New York: D. Appleton & Co., 1890. Pp. xiv + 175.
- Reeder, Ward G. The Business Administration of a School System. Boston: Ginn & Co., 1929. Pp. x + 454.
- Roberts, John S. William T. Harris--A Critical Study of His Educational and Related Philosophical Views. Washington: National Education Association of the United States, 1924. Pp. xiv + 250.
- Russell, John Dale, and Judd, Charles H. The American Educational System. Boston: Houghton Mifflin Co., 1940. Pp. xvii + 554.
- Vandewalker, Nina C. The Kindergarten in American Education. New York: Macmillan Co., 1917. Pp. xiii + 274.
- Wells, W. H. A Graded Course of Instruction for Public Schools. New York: A. S. Barnes & Co., 1870. Pp. 200.
- Wickersham, James P. School Economy: A Treatise on the Preparation, Organization, Employment, Government and Authorities of the Schools. Philadelphia: J. B. Lippencott & Co., 1864. Pp. 381.
- Winship, Albert E. Great American Educators with Chapters on American Education. New York: Werner School Book Co., 1900. Pp. 252.

Reports

Official Proceedings, Board of Public Schools, St. Louis, Missouri.
 Vols. I, II, III.

Thirteenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1867.
 St. Louis: Missouri Democrat Book and Job Printing House, 1867. Pp. 128 + lviii.

Fourteenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1868. St. Louis: George Knapp & Co., 1869. Pp. 103 + lxxx.

Fifteenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1869. St. Louis: Missouri Democrat and Job Printing House, 1870. Pp. 136 + lxiv.

Sixteenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1870. St. Louis: Plate, Olshausen & Co., 1871. Pp. 201 + cxx.

Seventeenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1871.
 St. Louis: Plate, Olshausen & Co., 1872. Pp. 191 + cxvii.

Eighteenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1872. St. Louis: Democrat Lithographing & Printing Co., 1873. Pp. 165 + cli.

Nineteenth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1873.
 St. Louis: Democrat Lithographing & Printing Co., 1874. Pp. 191 + ccxliii.

Twentieth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1874. St. Louis: Democrat Lithographing & Printing Co., 1875. Pp. 202 + cxcvi.

Twenty-first Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1875.
 St. Louis: Globe-Democrat Job Printing Co., 1876. Pp. 184 + ccxxlii.

Twenty-second Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1876.
 St. Louis: Slawson, Printer, 1877. Pp. 208 + xxxii.

Twenty-third Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1877.
 St. Louis: John J. Daly & Co., 1878. Pp. 228 + li.

Twenty-fourth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1878.
 St. Louis: Max Olshausen, Printer, 1879. Pp. 204 + lx.

Twenty-fifth Annual Report of the Board of Directors of the St. Louis Public Schools for the Year Ending August 1, 1879.
St. Louis: G. I. Jones & Co., 1880. Pp. 264 + clxiii.

Report of the Commissioner of Education for the Year 1888-89.
Washington: Government Printing Office, 1891. Vol. I, pp. liv + 669.

Report of the Commissioner of Education for the Year 1889-90.
Washington: Government Printing Office, 1893. Vol. I, pp. xxvii + 600; Vol. II, pp. 603-1671.

Report of the Commissioner of Education for the Year 1890-91.
Washington: Government Printing Office, 1894. Vol. I, pp. xxx + 644; Vol. II, pp. v + 655-1549.

Report of the Commissioner of Education for the Year 1891-92.
Washington: Government Printing Office, 1894. Vol. I, pp. xxviii + 603.

Report of the Commissioner of Education for the Year 1892-93.
Washington: Government Printing Office, 1895. Vol. II, pp. 1225-2153.

Report of the Commissioner of Education for the Year 1893-94.
Washington: Government Printing Office, 1896. Vol. I, pp. xlvii + 786.

Report of the Commissioner of Education for the Year 1894-95.
Washington: Government Printing Office, 1896. Vol. I, pp. lvii + 1148.

Report of the Commissioner of Education for the Year 1895-96.
Washington: Government Printing Office, 1897. Vol. I, pp. lxxv + 957.

Report of the Commissioner of Education for the Year 1896-97.
Washington: Government Printing Office, 1898. Vol. I, pp. lxxx + 1136.

Report of the Commissioner of Education for the Year 1898-99.
Washington: Government Printing Office, 1900. Vol. I, pp. lxxxviii + 1248.

Report of the Commissioner of Education for the Year 1899-1900.
Washington: Government Printing Office, 1901. Vol. I, pp. lxxx + 1280.

Report of the Commissioner of Education for the Year 1900-1901.
Washington: Government Printing Office, 1902. Vol. I, pp. cxii + 1216; Vol. II, pp. 1217-2512.

Report of the Commissioner of Education for the Year 1901-1902.
Washington: Government Printing Office, 1903. Vol. II, pp. 2211.

Report of the Commissioner of Education for the Year 1903-1904.
Washington: Government Printing Office, 1906. Vol. I, pp. civ + 1176.

Addresses and Journal of Proceedings of the National Educational Association; Sessions of the Year 1871 at St. Louis, Mo. New York and Washington: James H. Holmes, Publisher, 1872. Pp. 231.

Addresses and Journal of Proceedings of the National Educational Association; Sessions of the Year 1872 at Boston, Mass. Peoria, Illinois: N. C. Nason, Printer, 1873. Pp. 287.

Addresses and Journal of Proceedings of the National Educational Association; Sessions of the Year 1874 at Detroit, Mich. Worcester, Mass.: Charles Hamilton, 1874. Pp. iv + 294.

Addresses and Journal of Proceedings of the National Educational Association. Sessions of the Year 1880 at Chautauqua, N.Y. Salem, Ohio: Allan K. Tatem, 1880. Pp. iv + 267.

Addresses and Journal of Proceedings of the National Educational Association; Sessions of the Year 1885 at Saratoga Springs, N.Y. New York: J. J. Little & Co., 1886. Pp. 492.

Addresses and Journal of Proceedings of the National Educational Association; Sessions of the Year 1887 at Chicago, Ill. Salem, Mass.: Observer and Job Print, 1888. Pp. 1-817.

Addresses and Journal of Proceedings of the National Educational Association; Sessions of the Year 1888 at San Francisco, Cal. Topeka: Kansas Publishing House, 1888. Pp. 1-794.

National Educational Association. Journal of Proceedings and Addresses; Session of the Year 1889 at Nashville, Tenn. Topeka: Kansas Publishing House, 1889. Pp. 1-732.

National Educational Association. Journal of Proceedings and Addresses; Session of the Year 1890 at St. Paul, Minn. Topeka: Kansas Publishing House, 1890. Pp. 1-929.

National Educational Association. Journal of Proceedings and Addresses; Session of the Year 1891 at Toronto, Ontario, Canada. New York: J. J. Little & Co., 1891. Pp. 1-892.

National Educational Association. Journal of Proceedings and Addresses; Session of the Year 1892 at Saratoga Springs, New York. New York: J. J. Little & Co., 1893. Pp. 1-848.

National Educational Association. Journal of Proceedings and Addresses; Session of the Year 1894 at Asbury Park, N.J. St. Paul: Pioneer Press Co., 1895. Pp. viii + 1071.

National Educational Association. Journal of Proceedings and Addresses; Session of the Year 1895 at Denver, Colo. St. Paul: Pioneer Press Co., 1895. Pp. viii + 1102.

National Educational Association. Journal of Proceedings and Addresses of the Thirty-sixth Annual Meeting at Milwaukee, Wis., 1897. Chicago: University of Chicago Press, 1897. Pp. iv + 1132.

- National Educational Association. Journal of Proceedings and Addresses of the Fortieth Annual Meeting at Detroit, Mich., 1901. Chicago: University of Chicago Press, 1901. Pp. viii + 1034.
- National Educational Association. Journal of Proceedings and Addresses of the Forty-second Annual Meeting, 1903. Chicago: University of Chicago Press, 1903.
- National Educational Association. Journal of Proceedings and Addresses of the Forty-fourth Annual Meeting at Asbury Park and Ocean Grove, N.J., 1905. Chicago: University of Chicago Press, 1905. Pp. vii + 968.
- National Education Association. Journal of Proceedings and Addresses of the Forty-fifth Annual Meeting at Los Angeles, Cal., 1907. Chicago: University of Chicago Press, 1907. Pp. ix + 1102.
- National Education Association. Proceedings of the Sixty-fifth Annual Meeting at Seattle, Washington, 1927. Washington: The National Education Association, 1927. Vol. LXV.
- Bureau of Education; Circular of Information No. 2-1880. Proceedings of the Department of Superintendence of the National Educational Association, at Its Meeting at Washington, 1880. Washington: Government Printing Office, 1880. Pp. 1-111.
- Bureau of Education; Circular of Information No. 2-1882. Proceedings of the Department of Superintendence of the National Educational Association, at Its Meeting at Washington, 1882. Washington: Government Printing Office, 1882. Pp. 1-112.
- Bureau of Education; Circular of Information No. 3-1883. Proceedings of the Department of Superintendence of the National Educational Association, at Its Meeting at Washington, 1883. Washington: Government Printing Office, 1883. Pp. 1-81.
- Proceedings of the International Congress of Education of the World's Columbian Exposition, Chicago, 1893. New York: J. J. Little & Co., 1894. Pp. xviii + 1005.
- Seventh Annual Report of the Superintendent of Public Schools of the State of Missouri, 1872. Jefferson City: Regan & Carter, State Printers, 1873. Pp. 1-341.

Articles

- Harris, Wm. T. "The Basis of Education as a Science," The Western, n.s., III (May, 1877), 272-80.
- Harris, Wm. T. "Chairs of Pedagogics" (Report of Committee on Chairs of Pedagogics in Colleges and Universities), Education, III (November, 1882), 153-55.

- Harris, Wm. T. "The Church, the State, and the School," The North American Review, CXXXIII (September, 1881), 216 ff.
- Harris, Wm. T. "City School Supervision," Educational Review, III (February, 1892), 167 ff.
- Harris, Wm. T. "The Committee of Ten on Secondary Schools," Educational Review, VII (January, 1894), 1-10.
- Harris, Wm. T. "A Course of Study from Primary School to University," The Western, n.s., II (September, 1876), 521-38.
- Harris, Wm. T. "The District School System," Journal of Education, St. Louis, II (March, 1870), 121 ff.
- Harris, Wm. T. "The Division of School Funds for Religious Purposes," The Atlantic Monthly, XXXVIII (August, 1876), 171-84.
- Harris, Wm. T. "Education a Necessity," American Journal of Education, Springfield, Illinois, VIII (August, 1875), 4.
- Harris, Wm. T. "Education For and Against Caste," The Chautauquan, III (January, 1883), 194 ff.
- Harris, Wm. T. "The Education of the Negro," The Atlantic Monthly, LXIX (June, 1892), 723 ff.
- Harris, Wm. T. "Education in the United States," United States of America. Edited by N. S. Shaler. New York: D. Appleton & Co., 1897. Vol. II, Chap. vi.
- Harris, Wm. T. "Educational Needs of Urban Civilization," Education, V (May, 1885), 443-53.
- Harris, Wm. T. "Educational Psychology," The Journal of Speculative Philosophy, XIV (April, 1880), 225-39.
- Harris, Wm. T. "Elective Studies in Schools and Colleges," American Journal of Education, St. Louis, VIII (September, 1880), 9.
- Harris, Wm. T. "Elementary Education," North American Review, CLX (May, 1895), 538 ff.
- Harris, Wm. T. "Elementary School Education," The Journal of Speculative Philosophy, III (1869), 181-90.
- Harris, Wm. T. "Excessive Helps in Education," Education, IX (December, 1888), 215-20.
- Harris, Wm. T. "The Growth of the Public High School System in the Southern States and a Study of Its Influence," Educational Review, XXVII (March, 1904), 259-69.
- Harris, Wm. T. "The History and Philosophy of Education," The Chautauquan, III (October, 1882), 28 ff.
- Harris, Wm. T. "History the Test of Theory," American Journal of Education, Jackson, Miss., VIII (May, 1875), 7.

- Harris, Wm. T. "How to Study, and How to Teach," Journal of Education, St. Louis, III (January, 1871), 7.
- Harris, Wm. T. "The Idea of the State and Its Necessity," The Western, n.s., III (April, 1877), 206-15.
- Harris, Wm. T. "Ideal Education," The Western, n.s., II (April, 1876), 193-212.
- Harris, Wm. T. "Industrial Education in the Common Schools," Education, VI (June, 1886), 607-11.
- Harris, Wm. T. "Instruction in Natural Science," American Journal of Education, Jackson, Miss., VIII (April, 1875), 9.
- Harris, Wm. T. "The Kindergarten," American Journal of Education, St. Louis, X (July, 1877), 8.
- Harris, Wm. T. "Methods of Discipline and Instruction," American Journal of Education, Nashville, Tenn., and St. Louis, X (March, 1877), 6.
- Harris, Wm. T. "Moral Education," American Journal of Education, Kirksville, Mo., VIII (November, 1875), 5.
- Harris, Wm. T. "The National Commissioner of Education," American Journal of Education, St. Louis, VII (April, 1874), 3.
- Harris, Wm. T. "The National Education Association," Journal of Education, IV (September, 1871), 8.
- Harris, Wm. T. "Necessity of Public High Schools," American Journal of Education, Chicago, VIII (July, 1875), 4.
- Harris, Wm. T. "Oral Instruction," Journal of Education, St. Louis, III (January, 1871), 9.
- Harris, Wm. T. "Organization and Supervision of Schools," American Journal of Education, Kirksville and St. Louis, X (May, 1877), 6.
- Harris, Wm. T. "Our Educational System: What It Is; Why It Is; What It Accomplishes," The Chautauquan, XV (April, 1892), 17 ff.
- Harris, Wm. T. "Our Public School System," The Chautauquan, VIII (February, 1888), 278 ff.
- Harris, Wm. T. "Pedagogics as a Province of Education," American Journal of Education, Atchison, Kansas and St. Louis, X (June, 1877), 9.
- Harris, Wm. T. "The Pendulum of School Reform," Education, VIII (February, 1888), 347-50.
- Harris, Wm. T. "The Phonetic System," Journal of Education, St. Louis, II (April, 1870), 141-42.
- Harris, Wm. T. "The Proper Place of the Y.M.C.A. in the Educational Field," Education, XI (January, 1891), 265-72.

- Harris, Wm. T. "The Psychology of Manual Training," Education, IX (May, 1889), 571-82.
- Harris, Wm. T. "The Relation of American Colleges to the Public Schools," American Journal of Education, St. Louis, VI (September, 1873), 9.
- Harris, Wm. T. "The Relation of Women to the Trades and Professions," Educational Review, XX (October, 1900), 228.
- Harris, Wm. T. "Religious Instruction in the Public Schools," The Independent, LV (August, 1903), 1841-43.
- Harris, Wm. T. "Revolution in Course of Study," American Journal of Education, St. Louis, VII (May, 1874), 3.
- Harris, Wm. T. "School Statistics," American Journal of Education, V (November, 1872), 7.
- Harris, Wm. T. "The Science of Education," The Journal of Speculative Philosophy, XIII (April, 1879), 205-14.
- Harris, Wm. T. "Should Colleges Lower Their Standards of Admission," Education, XVII (June, 1897), 579-85.
- Harris, Wm. T. "Supervision," American Journal of Education, St. Louis, XII (March, 1879), 4.
- Harris, Wm. T. "The Study of Arrested Development in Children as Produced by Injudicious School Methods," Education, XX (April, 1900), 457.
- Harris, Wm. T. "The Study of Evolution in Education," American Journal of Education, St. Louis, VII (July, 1874), 3.
- Harris, Wm. T. "The Study of Geography," American Journal of Education, St. Louis, VI (November, 1873), 5.
- Harris, Wm. T. "Textbooks and Their Uses," Education, I (September, 1880), 1-9.
- Harris, Wm. T. "Textbooks--Their Uses and Abuses," Journal of Education, St. Louis, II (November, 1869), 42.
- Harris, Wm. T. "The Theory of American Education," Journal of Education, St. Louis, III (January, 1871), 3-6.
- Harris, Wm. T. "Thoughts on Pessimism and Educational Reform," The Western, n.s., I (May, 1875), 304-12.
- Harris, Wm. T. "Thoughts on the History of Education," The Western, n.s., III (June, 1877), 332-44.
- Harris, Wm. T. "University Education," Journal of Education, St. Louis, III (March, 1871), 10.
- Harris, Wm. T. "The Use of Higher Education," Educational Review, XVI (May, 1898), 147.
- Harris, Wm. T. "What Shall the Public Schools Teach?" The Forum,

IV (February, 1888), 573-81.

- Harris, Wm. T. "What Shall We Study?" Journal of Education, St. Louis, II (September, 1869), 1-3.
- Harris, Wm. T. "Who Patronize the Public Schools?" Journal of Education, St. Louis, II (February, 1870), 103-104.
- Harris, Wm. T. "Why American Schools Lay Stress on Discipline," American Journal of Education, St. Louis, VII (September, 1874), 7.
- Kasson, Rev. Frank H. "William Torrey Harris, LL. D.: His Intellectual Growth and His Educational and Philosophical Work," Education, Vol. VIII (June, 1888).
- Mowry, William A. "William T. Harris, LL. D., His Early Life and His St. Louis Reports," American Education, XIII (March, 1910), 308-11.

